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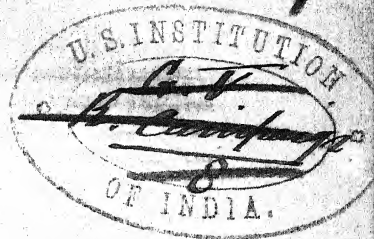
NOTE BY THE TRANSLATOR.

THESE Lectures were originally delivered in the Junker School at Orenburg, in 1872, by V. Potto, and were afterwards published in the "Voenny Sbornik," the semi-official Russian military magazine.

To a translation of these Lectures some brief remarks have been added on the Expedition to Khiva in 1873, as well as some account of the Turkmen tribes in the Central Asian Steppe bordering on the Affghan and Persian frontiers.

TOPOGRAPHICAL BRANCH,
QUARTERMASTER-GENERAL'S DEPARTMENT,
HORSE GUARDS,
December 1874.





STEPPE CAMPAIGNS.

I.

SHORT GEOGRAPHICAL AND ETHNOGRAPHICAL SKETCH OF THE COUNTRY.

Description of the Kirgiz Steppe.—Frontiers, Administrative Division, General Character of the Locality, Climate, Soil, Sands, Saltmarshes, Mountains, Lakes, Rivers, Vegetation, Lines of Communication, Towns, and Forts.—Short Sketch of Turkestan; its Administrative Division, Frontiers, Chief Mountain Ranges, Rivers, Sandy and Salt Steppes, Soil, Towns, and Forts.

THE broad tract, lying to the east of the River Ural and of the Caspian, between the southern frontiers of Western Siberia, the north-west of China, the branches of the Tian Shan, Bokhara, and Khiva, is known as the Kirgiz steppe.

In an administrative respect the Kirgiz steppe forms part of six provinces: of these the Semipalatinsk and Akmolinsk (the province of the Siberian Kirgeze) are subject to the Governor-General of Western Siberia; the provinces of Ural and Turgai (formerly provinces of the Orenburg Kirgeze) are under the Governor-General of Orenburg;* while the Semirechinsk and Syr Darya form part of Turkestan.

The characteristic features of the Kirgiz steppe are great scarcity of water, total absence of trees, and excessive aridity, due to the great heat of summer and the scantiness of the rainfall; a clay soil, partly sandy, partly salt; and finally, a "terrain" completely dried up by the winds.

The climate of the Kirgiz steppe is thoroughly continental, and is remarkable for the strong contrasts it presents—a severely cold winter and an excessively hot summer. The frost reaches 30° and even 39° (Reaum), and lasts for about three months. But the inhabitants do not suffer to so great an extent from the cold as from the winds and storms, which rage chiefly in the winter season. The snow storms are so violent that villages are buried in the drift and whole herds and flocks destroyed. The summer

* This government also included the Mangyshlak Circle, established on the east bank of the Caspian for the administration of the Adaeff Kirgeze. In the beginning of 1870 this circle came under the Caucasus authorities, and in the present day the line dividing it from the Uralsk Province passes from Mertvy-Kultuk to the north-west corner of the Aral sea, a little south of the deserts of Asmantai Matai and Sam.

heat in its turn becomes insupportable; in some places the clay soil, the sandy hillocks, baked by the burning rays of the sun, joined to the absence of large rivers and forests, raise the temperature to 50° R. Two or three hours before sunrise the thermometer shows 30° to 32°. Under these conditions, the grass which shoots forth in spring becomes rapidly burnt up, particularly in some parts of the Kara Kum and in the valley of the Syr Darya, where the heat even at the end of April becomes intolerable. The summer nights are likewise sultry, but the autumnal, on the other hand, are extraordinarily cold in comparison with the temperature of the day.

Rain and dews are very rare in the steppe, particularly in the summer months.

The winds are very strong, and in many places blow periodically at a certain season of the year. In winter they increase to terrible storms, and in summer to violent tornadoes which twist about in a columnar form with extraordinary force. We must observe that the winds of the summer months are of two kinds: one, called by the Kirgeze "Angazak," blows in the steppe chiefly after the first spring droughts, and lasts until the severe heats, when the other wind commences, called "Shildio," which, according to Kirgiz reports, blows for a period of 40 days. Of these the "Shildio," from its dryness and stifling nature, has a pernicious effect upon human beings, particularly those unaccustomed to the climate, producing general debility accompanied with constant perspirations and severe derangement of the digestive organs, which often leads to a serious illness. In winter the N.E. wind has great power, causing 5 or 6 degrees of frost to be felt as much as 15 or 16 degrees in a still atmosphere. The general causes of the severe cold and excessive heat in the steppes, irrespective of their geographical situation, are the absence of woods, running water, and especially the non-existence of high mountains to screen them from the winds blowing from Central Asia.

In a hygienic point of view the climate of the steppe is generally favourable; at least, signs of epidemic disease are never seen among the natives, with the exception of small pox, to which children are the chief victims.

The best soil is found in the northern and eastern parts of the Kirgiz steppe, where we meet with grass-lands and plains covered with black mould, which cannot be excelled for agricultural purposes. The western part, that is to say, the district between the River Ural and the Aral Sea, is less fertile and suffers from a want of fuel, as with the exception of a few shrubs and trees dispersed along the banks of the Ilel and its tributaries, there is no wood. Towards the south in the direction of the Caspian sea, we find sandy wastes, extensive salt plains, and lakes of water unfit for use. Cattle will only eat the grass when they can get no other. There is a grass called by the Kirgeze "Mamachup," which, while not differing in appearance from ordinary grass, produces serious sickness among the horses, particularly lameness, and is only fit for food, as a rule, in the autumn when the frosts have diminished its virulence. There are but few drinking places; ground suited

for cultivation is only met with on the banks of the Sagiz and Emba.

Beyond the Emba commences the entrance to the isthmus between the Caspian and Aral Seas, called the Ust Urt. This district forms a broad plain intersected in many places by isolated volcanic mountains, which stretch in lofty narrow chains from N.E. to S. and consist of a grey lime stone, furnishing excellent building material. Particularly important in this respect are the mountains near Lake Chugikakul, the banks of which are watered by good fresh springs. The best of these springs is the Ak Bulak, where at the time of General Perovsky's campaigns was built the Ak Bulak or Chugikakul Fort. The Ust Urt itself is a sterile plateau, surrounded on all sides by a sinuous and precipitate cliff called the "Chink." At some points it attains a height of 650 feet above the level of the sea, and is only accessible by the regular caravan roads. As regards the plateau itself it is not watered by a single river, and in consequence of this there is no pasturage whatever. The shrubs and grass growing upon it are suitable only as forage for those camels which are not fanciful. To its barren soil are united terrible whirlwinds and storms which render the plateau nearly uninhabitable in winter.

Equally barren almost is the entire central part of the Kirgiz steppe included between the Ulu-tau mountains, the commencement of the Barsuk deserts and Lake Aksakal. Here the soil consists partly of a dry, friable and nearly barren clay, which produces only wormwood, and partly of extensive sandy districts, broken here and there with salt lakes and dried salt marshes. Spots suited for cultivation are found only on the banks of the Turgai. Equally if not more sterile is the whole of the southern part which ends on the side of Turkestan with the so-called Hungry steppe.

The chief sandy deserts of this country are the Kara Kum and the Bek-pak-dala—or the Hungry steppe—which lie on the northern borders of Turkestan and extend for some hundreds of versts in area. Then come the broad sandy districts reaching to the N.E. from the Aral sea—the Great and Little Barsuks; west of these, on the banks of the Uil, lies the Barkin desert, on which is built the Uil Fort and Taisugan; and more to the south, in the northern part of the Ust Urt, are the Sam and the Asmantai-Matai deserts.

It should be remarked, however, that in these sandy districts absolutely barren places are seldom met with; the greater part have good water and are interspersed with shrubs or grass, in the form of isolated oases, so that very often the flora of the sands is much richer than that of the adjacent steppe. But these deserts, so terrible in the season of the summer hurricanes, are of great advantage in winter to the inhabitants, as their sandy dunes offer considerable protection to the herds from the storms which rage in these regions, and allow of the winter dwellings being constructed in the intermediate hollows.

The marshes here are called *solonchaks*, that is to say, muddy

swamps containing a large quantity of saline matter. Some of these marshes dry up very rapidly when the hot weather commences, and become covered with a solid white incrustation from the salt which remains. Such salt marshes, remarkable for the complete absence of vegetation, are called dry or salt lands, in contradistinction to those which do not freeze in winter and dry up slowly in summer; both present nearly insurmountable obstacles. Salt marshes are chiefly met with in the western part of the steppe, at the mouths of the rivers Emba, Sagiz, Uil, and on the north shore of the Caspian.

The Kirgiz steppe is by no means flat, on the contrary it is undulating and is intersected in places by considerable mountain chains. Thus, the branches of the Ural range, which project into the Kirgiz steppe on the north-west, take a direction partly towards the sources of the Irgiz and partly towards the village of Ilnsk and the town of Orsk, where they are called the Guberlin mountains. In its western part the Kirgiz steppe is intersected by the well known Mugojar range, which forms, as it were, a continuation of the same branch of the Ural. This range, at its highest point (Mount Airiuk), attains a height of 1,200 feet, but in other places, as for example, in the mountains Jaksi-tau, Jaman-tau, Baktibai-Karatau, and others, the elevation does not exceed 700 or 800 feet; as we travel southward it becomes lower and lower, passing by degrees into sandy hills which merge into the table land of the Ust Urt. The Mugojar range consists of granite ridges, with abrupt and nearly perpendicular sides, covered in many places with isolated clumps of trees of stunted growth; still there is good grass, which, although not abundant, is in sufficient quantity for the small herds of the nomad tribes. These localities serve as hiding places for gangs of robbers, who are further aided by the deep narrow and rocky defiles, abounding in springs, which are found at the base of the Mugojar mountains.

On the east side there project into the Kirgiz steppe, branches of the Altai mountains; in the central part lies the isolated mountain range of the Ulu-tau, which separates the Kirgeze of the Orenburg and Siberian administrations; while on the south, along the right bank of the middle course of the Syr Darya, run the Kara-tau mountains—branches of the Tyan-Shan range. Besides these, there lie to the west of the Ust Urt the famous low chain of the Ak-tau, and to the south of the Ust Urt, the Aksary Baba mountains.

The Kirgiz steppe abounds in lakes; some of these are of fresh water but the majority are bitter or salt. After the Aral, the largest is Lake Balkhash, situated on the frontiers of the Akmolinsk and Semirechinsk provinces. It is about 600 versts in length from N.E. to S.W. and is surrounded by deep sands. In the middle of the steppe are the large lakes of Aksakal-Barbi, which are separated from the Aral by a sandy steppe, and at one time formed a single sheet of water 200 versts in circumference. At the present time the Aksakal-Barbi, sometimes called Aksakal-

Taūn, forms a group of small lakes separated by sandy tracts, which are overgrown with reeds and, in places, present eligible sites for nomad dwellings. After these come the small lake, Chalkar, or, as it is called by the Ural Cossacks, Lake Cherkhal, known to the whole horde for the quantity of its fish; the great salt lake, Bartyldakhta, and, lastly, the Inder, situated among the rocky mountains of that name, on the left side of the Ural, about 10 versts from the Gorsk advanced post. Besides these, many large, but completely dried-up lakes filled with sand, are found in the Kirgiz steppe, such as Mashé, in which is built the Lower Emban Fort, and others, which are only dry at a certain season of the year, as for example: Lakes Chushkakul,* Asmantai Matai, Sam, and others, which are covered in summer with a hard and thick incrustation of salt.

Of the rivers watering the Kirgiz steppe, the most important on the west is the Ural, and on the east the Irtysh, which receives, among others, the Rivers Tobol and Ishim, on which the town of Akmolinsk is situated. Into the Tobol fall the Ui, serving as a boundary between European Russia and the Kirgiz steppe, and the Uhagan, which separates the Siberian steppe from the Orenburg.

Of the tributaries of the Ural, on the left side, the Or and Ilek are worthy of note; the latter in its upper course is called the Isenbai. The latter receives near Iletz Zashchita the great Khobda, the banks of which are bordered with excellent meadow land.

Into the Caspian falls the River Emba, which takes its rise in the Mugojar Mountains and receives several tributaries of which the more important are the Temir, celebrated for its excellent sweet water, and the Ati-Jaksi, upon which Count Perovsky built a fort called the Emban. To the north of the Emba flows the little river, Sagiz, which loses itself in salt marshes; and still more to the north is the Uil, with the fort of the same name on its banks. Lastly, into Lake Aksakal Barbi falls one of the most important Kirgiz rivers, the Irgiz, which receives many affluents, the principal being the Turgai, from which the district receives its name. From the western slopes of the Mugojar Mountains there likewise issue a number of rivers, of which the more important are the Karachandak, Kunduz, Ashché-Sai, Ak-Tyken (Aūlie-Mola) and Karagand, the banks of which, from their sources in the mountains are covered with meadow grass, birch groves, poplars, rock-cherry and gooseberry bushes, wood-bine, willow and other small growing timber. Next we must mention the River Chagan, which takes its rise nearly at the foot of the Ust Urt; and although possessing sweet water, yet from the overgrowth of reeds and its sluggish course, is so teeming with infusoria as to be quite unfit to drink in summer.

The chief peculiarity of the rivers here is the low state of the water; in spring the greater part overflow the vast plains or form

* So called from the number of wild boar in the vicinity.

torrents in the deep ravines. In either case the mass of water increases to large dimensions; it becomes impossible to ford and, in order to cross, the Kirgeze are obliged to form rafts (sals), and even bridges of bundles of straw which they skillfully connect by means of horse-hair rope. But these high floods do not last long; the water commences to fall rapidly, and in summer the rivers become fordable everywhere, and in places entirely dry up or form a few small pools. On this account navigation along these rivers is impossible; even floating down at the time of the floods is scarcely practicable, as at this season the mass of water is very considerable and flows with destructive velocity. Moreover, most of the rivers never reach the sea, but lose themselves in the desert or empty themselves into lakes. Another still more characteristic peculiarity of the rivers is that the water at the end of the flood in the majority, for instance in the Uil, Sagiz, Emba, Irgiz, and some others, becomes so salt or bitterly saline to the taste as to render it unfit for drinking in summer and autumn.

The vegetation of the Kirgiz steppe is, as a rule, not abundant. Woods, principally fir, are met with on the slopes of some of the mountains, and in the northern part where there are the two well-known pine forests, Aman Karagai and Ara-Karagai, situated in the Nicolaëff öyezd. The principal vegetation which covers the steppes in spring is the feather-grass, Timothy grass, lucerne clover and wormwood. Of other plants some species of poisonous herbs are worthy of mention; for instance, Manerchup, about which we have previously spoken, and Eitsygek, used by the robbers to taint and poison the wells in those places frequented by our detachments. Among the useful herbs may be mentioned Kumartchek, resembling in appearance rolling-flax, and used by the Kirgeze as food in bad harvest years; Drovyanik, in Kirgiz Kukpek, which is the best fuel in the steppe; the reed saksaul and chi or chievnik; also a kind of reed, from which the Kirgeze plait very prettily-figured mats for their kibitkas. As regards saksaul its outward appearance is somewhat like woodbine, but it has long soft and saline prickles. The tree itself is strong, heavy, and burns in the fire damply, emitting an agreeable odour. Saksaul commences to be found in the steppe between the Mugojar mountains and the Aral sea; but in consequence of the sandy soil only grows as a dwarf shrub. As we travel southward it becomes larger, and on the banks of the Syr Darya, where the soil is clayey, attains a considerable height, growing like a tree, and forming woods. On the Ust Urt, according to Levshin,* saksaul also grows in abundance.

Many of the lakes, the banks of rivers and the sea-shores are overgrown with reeds. Thus, on the north side of the Caspian, from the mouth of the Ural to that of the Emba, a distance of 100 versts, there grows a compact mass of reeds. Larger districts even are covered with reeds for hundreds of square versts; for example

* "Description of the Kirgiz Hordes and Steppe," 1832."

the vicinity of the Aksakal lake, the banks of the Syr Darya, and some parts of the east shore of the Aral. Generally speaking the reed grows to a gigantic size, 20 to 35 feet in height. The uses to which it is applied are many; the young reed is used by the Kirgeze as hay; the heads of the old serve in winter as fodder for cattle, while the stalks, where there is no wood, are employed as fuel. Besides this, where the reeds grow high and thick, there the nomad tents in winter find the best protection against frost and storms.

The steppe is passable nearly everywhere, and consequently the Kirgeze have no ideas of artificial modes of communication. There are no roads, but there are certain directions taken by the trade caravans, by the Kirgeze in their migrations, and by our own military transports, leaving in the steppe broad paths or deep cart ruts, which close up with grass so slowly that they remain visible for many years. In places where there is but little water, the roads depend solely upon the position of the wells, without which it would be impossible to exist in these deserts. As regards postal communication, the principal road passes from Orenburg through Orsk, Karabutak, Irgiz, and Kazala to Tashkent, the so-called Orsk-Kazala road. Along the whole of this road* there are postal stations, at some of which Cossack picquets are quartered during the summer; these remain at their posts up to the return of the Kirgeze to their winter quarters. Postal communication between the steppe forts and the detachments is usually carried on by chabars (messengers); but of late years attempts have been made to organize a regular service, a commencement being made by opening the post road from Orenburg to Ak-Tiube, from whence the Kirgeze, if required, willingly provide relays of horses either to the Emban post or to Karabutak.

Towns of long standing are found only in the eastern part of the Kirgiz steppe, which is under the Siberian jurisdiction; they serve as centres of administration of the Kirgeze, for instance, Ormsk, Akmolinsk, Semipalatinsk, Petropavlovsk, Kokchetav, Pavlodar, Kokpekty. In the western part, which is usually the theatre of military operations, the towns are replaced by forts. Of such are the forts in the Turgai district—Orenburg and Ural (in Kirgiz, Djar Mola), which have recently been transformed into the towns of Turgai and Irgiz; after these come Forts Karabutak and Ak-Tiube. The Ural district has for depôts, the Emban post and the forts of Lower Emba (in Kirgiz, Issen Berdy) and Uil (Kugjar); the other towns, which are centres of Kirgiz administration, are not properly in the steppe, but lie within the jurisdiction of the Orenburg Government, as, for instance, Orenburg and the Ilets Zashchita; or in the country of the Ural Cossacks, the towns of Uralsk, Kalmykoff, and Guriëff.

Turkestan, which includes a considerable tract of the Kirgiz

* As we are aware, regular postal stations are only established at a few places on the Kazala highroad, within the borders of the Orenburg steppe; at other points there are earthen huts or nomad tents, which, however, afford no conveniences for travellers, particularly in the cold season.

steppe, is divided into two districts, the Semirechinsk and Syr Darya.

The general character of the region is steppe; but all the eastern, particularly the south-eastern part, may be more correctly described as mountainous, having in some places an Alpine character. Such is the Semirechinsk (Seven Rivers) district, the eastern half of which is mountainous, being intersected by branches of the Tian-Shan which attain an elevation of 16,000 feet above the sea level. The Syr Darya district in some parts is very similar, the north-east being traversed by part of the lofty snow-range of the Alexander mountains, and their continuation known as the Kara-tau, which strikes, as before-mentioned, the central course of the Syr Darya, terminating at Fort Djulek.

Of the rivers which water this district, the principal are the Syr, with its affluents, in the Semirechinsk district the Tchû, which rises in the Tian-Shan beyond Issyk Kul, and the Ili which also takes its rise in the Celestial mountains (Tian-Shan) but in Djungaria.

Of the lakes, besides the Balkhash, of which we have previously spoken, there is the very picturesque lake Issyk Kul, about 250 versts in length, surrounded by gigantic snow mountains:

All the northern, and also the south-western part of Turkestan, presents one almost unbroken sandy steppe; it commences on the south-west with the desert of Kizyl Kum, bounded by the Khanates of Bokhara and Khiva, thence passes to the north as the Kara Kum desert, and from thence is continued as far as Lake Balkhash under the name of the Hungry steppe* (Bek-pak-dala and Bispak Kum). In spite, however, of the name, the scantiness of the vegetation and the want of water, a very important caravan road passes through this steppe from the town of Turkestan past Akmolinsk to Petropavlovsk.

The fertile part of Turkestan commences close to the embouchure of the Syr Darya, and extends as a narrow band along its course and affluents, and also along the mountain valleys of the south-eastern part of the Syr Darya, and the south of the Semirechinsk districts. But in spite of its fertility, the soil, in consequence of the intense heat of the summer, demands a considerable amount of artificial irrigation, without which agriculture is impossible.

The seat of government and place of residence of the Governor-General of Turkestan is Tashkent. In the Syr Darya district the troops are distributed at the following points:—Kazala, Fort No. 2, Perovsky, Djulek, Turkestan, Tchemkent, Tchinaz, Khodjent, Aûlie-ata, Merke, Ura-Tiube, and Kliucheff (near Djizak).

The towns in the Semirechinsk district are Vernoe (district), Kapal, Sergiopol, Tokmak, Karakol, and Fort Narýn. Besides these there are in this district many villages of Siberian cossack

* The more accurate translation of the Kirgiz, "Bek pak dala," is the Lousy Steppe.

troops, and with each year the colonisation of Semirechinsk with emigrants from the interior of Russia is increasing, especially in the southern part of the district.

II.

General Idea of the Kirgiz Nation and its subdivisions: Winter locations of the Kirgeze within the Orenburg jurisdiction; Different Systems of Administration of the Kirgeze up to the recent reforms; Regulations of 1869; Mode of Life of the Kirgeze; Education, Religion, Customs, Cattle Breeding, and Summer Nomadising of the Kirgeze; their Skill in War, and Armament.—Tribes populating Turkestan,—Sarts, Uzbeks, and Kara-Kirgeze.—Turkmen.

The primitive population of the steppe consists of nomad tribes of Kirgeze, which, according to tradition, formed at one time, in a political sense, a single race inhabiting this immense tract of territory, speaking the same tongue and having one sovereign—a Khan. One of these Khans, by name Alatch, shortly after the fall of the Gengiz Khan dynasty, divided his possessions among his three sons, by whom were founded the Little, Middle, and Great Hordes.

The Great Horde nomadizes chiefly in Turkestan, and is partly dispersed over the neighbouring Central Asian territory; it is divided into 5 races or 19 tribes.

The Central Horde occupies the steppe district of the present Siberian jurisdiction, and consists of 4 races or 37 tribes.

The Little or Trans-Ural Horde, about which we shall speak more in detail, occupies the Orenburg steppe, and consist of three races which have been broken up into 25 tribes. These races are: Alim, Baulyn, and Semirod (Jity-ruyu).

To the first of these belong six tribes: Kitin, with the branch Ujiraef, Chumekeyef, Chiklin, Diurtkarin, Karasakal, and Karakisyak.

To the second: Adaeff, Baibaktin, Alatchin, Maskar, Kyzylkurt, Tcherkesh, Isyk, Bershef, Isentemir, Yapas, Altyn, and Taz (Tazlar*).

To the Semirod: the Tabyn, with the branch of Tchumyshli-Tabyn, Tamin, Kerderin, Kireit, Romadan, Teleuf, and Jigal-bailin.

Each of these tribes has a distinguishing badge or stamp (*tamga*) and a military *Uran*, or battle cry, a detailed study of which would be very advantageous in so far that the stamp of a captured herd, or the cry of an advancing foe, would serve to distinguish the tribe of Kirgeze to which they severally belong.

In addition, each of these tribes is subdivided into divisions, for instance, the Tchiklins have the following divisions: Kabak,

* Part of the Baiyulin race, as early as the commencement of the present century, passed over with its sultan (Bukeya) to the Astrakhan government, and there formed the separate inner or Bukeyefhorde, which, in the present day, is under the Government-General of Orenburg.

Nazar, Jikeyef, Janklichef, Jakaim, Churenef, Tlyav, Kirgiz. The divisions have also numerous subdivisions.

The highest grade are the sultans, descendants of the governing Khans. As men belonging by their origin to the "*white bone*," that is to say, to the descendants of Chingiz Khan, they are not included among any of the tribes, but have a genealogy of their own.

As the Kirgeze only nomadize in summer, and always return in winter to one and the same localities, the locations of the different tribes are designated in accordance with their more permanent places of residence.

In the Turgai province:—

To the north, along the rivers Ubagai, Tobol, and the upper part of the Turgai, live the Argyns and Kipchaks, which belong properly to the Middle Horde, but have long since passed from the Siberian to the Orenburg steppe.

Between the old and new Orenburg lines, the Kireits, and along the lines themselves are dispersed the Yappas tribe, a great part of which, however, passes the winter in Turkestan on the Syr Darya and in the Kara Kum desert.

Then, commencing from Upper Uralsk to Orsk and to Fort Ili beyond, and in the steppe along the course of the Or, the Jigalbailins.

Along the River İlek, the Novoiletz line, and the Ural, as far as the Irtetsk advanced post of the Ural troops, the Tabyns and Tamins.

From Fort Uralsk along the Irgiz southward as far as Terekli, and to the east and north as far as the frontiers of the Turgai and Nikolaef üyezds, the Chumikeyefs.

Further, among the Little Barsuk and along the bank of the Aral sea as far as Perovsky bay, and to the north as far as the frontiers of the İlets and Nikolaef üyezds, the Diurtkarins; and lastly,

In the Great Barsuk, the Tchiklins.

In the Ural district the Kirgeze are distributed as follows:—

Along the Ural, between the Rubej and Kogikhar advanced posts, winter the Kerderin tribe.

Beyond this, to Fort Topolin, come the Baibaktin tribe.

To the east of the latter, among the reeds of Lake Kara Kul, live the Maskars; and opposite Fort Kulagin and the Grebenshchikof advanced post, the Kyzykurts.

Down the Ural, from Fort Baksai to Saraichik, the Bershefs.

Along the Caspian, opposite Gurief-Gorodok, are the Tcherkesh and Taz tribes.

To the east of the Ural, among the sources of the Uil, winters part of the division of the Tchiklin tribe—the Tchurenefs, other portions of which, occupy the reeds in the bays on the north-eastern bank of the Caspian.

Together with the Tchurenefs, at the sources of the Uil, and also in the Barkin sands and along the Sagiz, winter the Ujiraefs.

Below the Barkin, towards the mouth of the Uil, the Isen-temirs.

Further on, in the desert of Taisugan, the Kitins; and rather

more to the northward, opposite Fort Kalmykof, along the River Yakshi-Baū, the Alatchins.

Then, at the mouths of the Uil, the Sagiz, and partly along the Emba, are the winter quarters of the Issyks.

Then, from Kondoral to the sources of the Emba, the Nazars;* and opposite Kondoral, in the Jiltau mountains beyond the Emba, the Karakilyaks.

At the same place, along the left bank of the Emba and on the Ust Urt in the Asmantai-Matai and Sam deserts, and further on close up to the Khivan territory, are the Tchumyshli-Tabyns; and still further, in Bulatch and Mangyshlak, the Adaefs. †

The remaining tribes: Altyns, Romadans, Teleufs, Karasakals, and part of the Yappas, Diurtkarins and some others, winter on the Syr Darya, *i.e.*, in Turkestan.

In passing to the administration of the Kirgeze, we must mention that up to 1869 the Orenburg and Siberian steppes were administered on two different systems, the commencement of which dates from the year 1812.

Up to that time Russia had scarcely interfered at all in the internal life of the Kirgiz people, striving only to prevent their incursions and to secure its own trade relations with Central Asia. The Khans, at the head of the administration, acted almost uncontrolled, deceived Russia on many occasions, and were the chief instigators of the disturbances and outbreaks among the members of the Horde. In consequence of this, after a lapse of 12 years, the dignity of Khan was abolished, and the whole of the steppe within the Orenburg jurisdiction divided into three parts, each under a separate Sultan Governor. But this did not answer, as these Sultan Governors, although under the control of Russian officials, were the same as Kirgeze Khans, with this sole difference that while the steppe was previously administered by one, it was now managed by three absolute persons who did not enjoy the confidence of the people. As a proof of this we may mention that during the summer peregrinations in the steppe, it was found necessary to have a special escort, consisting ordinarily of a whole sotnia of Ural or Orenburg Cossacks, for the protection of the Sultan Governors.

In 1837, a tax of 1 rouble 50 copecks (silver) per kubitka was imposed on the Orenburg Kirgeze. The Siberian Kirgeze paid tribute, that is to say, a fixed payment from cattle, which brought in from 2 roubles to 2 roubles 70 copecks per kubitka.

Generally the system of administration of the Siberian Kirgeze answered well. Twenty years after the abolition of the dignity of Khan, it was found possible to introduce Siberian regulations and institutions among the Kirgeze, and by slow degrees the Russian laws in regard to justice and administration, adapting these laws as far as possible to their peculiar circumstances.

* Division of the Tchiklin tribe.

† Part of the Adaefs, the so-called Balaksh, or Yatak people, that is to say, Kirgeze who are not nomadic, pass the winter in the lower part of the Emba.

On this basis the nomad population of the Siberian steppe was divided into circles (*okrug*), with a regular administrative station (*prikaz**), and the circle subdivided into *volosts*, and this again into *aïls*.

At the same time by populating part of the Kirgiz steppe with Cossacks brought from the Siberian line, a considerable Russian population was transferred into the depth of the steppe, thereby serving as a means of bringing the Kirgeze into closer contact with the Russians, and of disseminating civilised ideas among them; the formation of *bureaux* led to the founding of towns, such as Akmo-linsk, Kopal, Sergiopol, which even in the present day are centres of local administration for the Kirgeze.

But even this system in the course of time demanded fresh additions and modifications. After the translation of our boundaries from the Ural and Irtysh more than 1,000 versts into the depths of Asia, and in particular after the formation of the Turkestan General Government, the Kirgiz steppe, at one time forming the frontier territory of Russia, became the interior of the Empire, and attention had now to be turned to gradually identifying this region with Russia. This object could only be attained by the introduction of a settled administration, similar in its main principles to the institutions of the Empire, with such differences as were demanded by the character of the nation, their degree of development, and lastly the economical and political conditions under which the Kirgiz population existed.

With this object a special commission was formed, the labours of which terminated in 1868 with the issue of "temporary regulations for the administration of the Uralsk, Turgaisk, Akmo-linsk, and Semipalatinsk" districts.

On the basis of this regulation all the lands occupied by the Kirgiz nomads were proclaimed as imperial, and reserved for the sole public use of the Kirgeze. The rights of all Kirgeze in the general imperial service were assimilated to the rights of the ordinary rural populations of the Empire.

The entire steppe, as we have already seen, forms part of six districts under the chief jurisdiction of the Siberian, Orenburg, and Turkestan General Governments. Each district is administered on identical principles by a separate military Governor, who, at the same time, is commander of the troops in the district. The districts are divided into *ayezds*. In the *ayezds* the Kirgeze are formed into *volosts* and *aïls*. In each *aïl* there are from 100 to 200 *kibitkas*, and in each *volost* 1,000 to 2,000 *kibitkas*.

For certain crimes, such as treason, murder, highway robbery, intertribal robbery, making counterfeit coin, the Kirgeze are amenable to the general criminal code of the Empire; but in decisions on purely tribal matters, and also for the examination of claims and litigations, they have a native tribunal which is held

* *Prikaz*, or bureau for civil administration, of which the superintendents were vested with political and judicial powers. They were abolished on the introduction of the steppe reform in 1867-8.—*Translator*.

publicly by chosen persons called Biys. The Biys, who are appointed by the choice of the people, serve without any pay, but after pronouncing judgment receive a fine from the guilty, which is determined by tribal customs.

Having equal rights with the rural populations, the Kirgeze, like them, avoid a great part of the Imperial obligations, paying a tax of 3 roubles per kubitka; they give no recruits, and furnish no militia, their obligations being limited to providing mounted horsemen at the requisition of the commander of the forces.

As regards their domestic life it is simply an exact counterpart of the most patriarchal times. The people are in every sense pastoral. Their intellectual development is not high, although it is impossible to deny their natural capacity, evidence of which is given by those who have been educated at the different schools. But only the children of rich parents receive education. All other Kirgeze, even Sultans and Biys, either remain ignorant or can merely read and write Tatar.

The Kirgeze profess the Mahommedan religion, of the Sunnite sect; but with it are blended many Pagan procedures, as, for instance, the custom of praying to God at the graves of renowned Batyrs* who have perished in wars with our troops. The Kirgeze look upon them as saints (*aūlie*), and as the equals of those who in life as mullahs addressed themselves to the study of the Koran and the tenets of their religion. For instance, when a contagious disease breaks out among the neighbouring flocks, the Kirgeze bring up their herds to the tomb of the renowned batyr Uten, at Issen Berdy, near the mouth of the Emba; they also bring up their sick children and their barren women, and remain at the town for several days passing the time in prayer and sacrifice.

Like all Asiatics, the Kirgeze are by nature kind-hearted; they never refuse a traveller lodging and food, but at the same time they are unacquainted with the usages of hospitality in the broad sense understood by our Caucasian mountaineers. Thus they permit every possible fraud, artifice, and perfidy to be practised on their enemies, and consequently in any relations with them it is necessary to be always on one's guard.

The Kirgeze are little addicted to agriculture, as cattle-breeding has for a long time served as their chief source of wealth and prosperity. They breed with success sheep, goats, horses, camels, and, to the north of the Emba, horned cattle; the latter, however, are few in number. These herds provide them with food, dainty drinks (*kumis* and *airan*), clothing, felts, the necessary means of transport, and articles for barter with the Russians.

Having a large stock of cattle, the Kirgeze naturally cannot provide a sufficiency of grass for them in the winter. Although of late years, by arrangement with the local government, they make hay and organise public stores of that commodity for winter, yet it is only given to a few of the best horses, camels, and some of the milch cows; the rest of the herd find their own under-foot

grass. Instinct in this case aids the animal in saving him from inevitable death from hunger; horses, sheep, goats, and horned cattle, scrape away the snow with their hoofs in order to find the grass underneath. But if the winter is very severe, the snow deep, and they find an undercrust of ice which they cannot break through with their hoofs, great havoc is caused among the flocks from hunger, and in a very few days the Kirgiz is deprived of all his means of existence.

As a protection against cold and wind the Kirgeze endeavour to pass the winter in sheltered places, in hollows, or among reeds and sand dunes. They conceal their kibitkas in the reeds, and throw snow over them, so as to protect them from the winds; but, notwithstanding this, the cold is so penetrating that the Kirgeze are now commencing to build permanent dwellings, usually of turp plastered with clay, or of stone, like the huts of the Caucasian mountaineers; in some places wooden houses are even met with, but these have chiefly belonged to former Kirgiz sultans. On the return of the first hot weather, the Kirgeze abandon the dwellings and remove to the kibitkas, which are more suited to their mode of life. The kibitka is a simple wood frame, arranged in a circle, and cupola shaped; on the outside it is covered with felt; at the top, in the centre, is a large round opening, called the *tiundiuk*, which admits light and allows the smoke to egress.

The poorer classes cover their djulameiks with the ordinary grey felt; but the richer ornament them with large felts, and spread the inside with carpets, rich cloths, silk stuffs, and even velvet.

Being able to strike and pitch a kibitka in half an hour, the Kirgiz carries it in summer on a camel to wherever he can find sufficient grass and water for his cattle. Nomadising generally commences in early spring and continues all the summer, the Kirgeze returning to their winter camps in late autumn. They nomadise ordinarily in small bodies which are called *aïls*, and are formed of a few families of three to five, and seldom more than 10 kibitkas.* The route of the nomads depends on the time of year, the local conditions and the state of the grass in the steppe.

Ordinarily the Kirgeze who have passed the winter in the north move southward in the spring, and those of the south move to the north. If the grass is good the summer nomads are distributed pretty equally over the whole steppe; but if there has been little snow during the winter, and the summer, after a short spring, comes on sooner and the temperature rises, then all the southern part of the steppe becomes deserted, and masses of Kirgeze in their search for water and grass, move from the south into the Iletsks, and to the northern part of the Ural and Irgiz *üyezds*. To what distances they proceed may be gathered from the fact that tribes which pass the winter on the Syr Darya, reach the Upper Turgai, the Ul-Koyak, and even pass beyond the new line;

* The author is here probably speaking of the Orenburg part of the steppe, as in the other parts of the Kirgiz steppe the size of the *aïls* is very much larger.

while on this side of the Emba, along the banks of the Sagiz, Uil and Khobda, appear the auls of the Tchumyshli-Tabyns, the Adaefts, and those Kirgeze who migrate to us in summer from the Khivan frontiers.

With regard to the last mentioned, they do not customarily return to the Khivan frontiers before the middle of September, or even the beginning of October. The Kirgeze who decamp to Khiva before that period are generally fugitives hiding from the consequences of the law, and from the punishment which awaits them.

The Kirgeze during their rambles are not generally allowed to halt, until beyond the Emba, without permission of the commander of the district, and if an *aul* is met with without this permission, the patrols sent out from the troops are obliged to order it to the left bank of the Emba. This rule is based upon the fact that the Kirgeze do not halt on the other side of the Emba for forage for their cattle, as the nearer the north the better the grass; but in order to capture some horses or to harbour robber gangs, who await in these *auls* favourable opportunities for pillage.

In conclusion we will add that, from a military point of view, the sole merit of the Kirgeze is that they are able to bear fatigues and privations. It is a matter of no importance for a Kirgiz to go without meat for months so long as he has groats and millet, of which there is always a supply, and, in their absence, roots. With his water also he is not fastidious, and from habit is able to bear thirst for a long time. His sense of sight is so keenly developed that on level ground he can see small objects at 10 versts; when a European sees only indistinct points, the Kirgiz is able to distinguish the outlines of an object, the colour of a horse, &c. His capacity for finding his way is not less remarkable; the smallest elevation of ground serves as a sign which he never forgets; if there is no mark, the presence of certain grasses, and the direction in which they grow, show him the road. Eye witnesses relate on this subject that after having lost the road, a Kirgiz has been seen to dismount, tear up a handful of dry grass, and after smelling it, quietly change the direction. These qualities make them valuable for reconnoitring duties; but their military valour and courage are somewhat doubtful. The most warlike of all are the Kirgeze of the *Adaeft* race, but they are nothing but bandits, and are bold only in plundering caravans. The cause of this possibly lies in the very nature of the attack in which pillage and easy gain are the only motors; but these motors, naturally, cannot make a whole race brave and intrepid. To this we must add that being skilful riders by nature, not hesitating to mount perfectly unbroken horses, they are unable to fight on foot, and therefore do not possess the least steadiness in warfare.

But all these qualities do not prevent them from inflicting serious harm upon the bravest enemy, if not in the open field, by seizing his defenceless people, driving off his herds at the least want of vigilance on the part of the sentries, and plundering his baggage. The Kirgeze generally treat their captives with less rigour than

other Asiatics, but this good trait proceeds not so much from kindness of heart as from interested motives, and the desire to sell them as advantageously as possible in the markets of Khiva and Bokhara.

The arms of the Kirgeze at present are of a primitive description. They consist ordinarily of a very straight and thin lance (*nüita*) and a curved Persian sabre (*klych*) of very slight value. They use fire-arms but little; although some of the Kirgeze have percussion arms, the majority have the old firelock (*beltie amültuk*), which they could only fire, if they would, on foot; and this the Kirgeze never do. Bows and arrows have entirely gone out of use, so that of the ancient national arms they have retained only the battle hammer (*ai-baltu*), a small axe on a straight handle, and the *kamcha*, or thick whip, a powerful weapon in the adept and strong hands of a Kirgiz.

Tribes inhabiting Turkestan:—Sarts.—*The Sarts are a complete contrast to the Kirgeze, and are the chief representatives of settled life in our Turkestan possessions. Some suppose that the Sarts are a special race of Persian extraction; but in Turkestan the Sarts may be taken to include generally all inhabitants of towns and villages. The Sarts are inclined by preference to a quiet life, their principal occupations being agriculture, trade and gardening. To this we must add that the Sarts generally are very religious and have a desire for learning, very few illiterate persons being found among them; nevertheless this race is exceedingly effeminate, cunning, cowardly, and addicted to petty trade, not unlike our Jews.

Of the other tribes peopling our Turkestan possessions we must mention the Kara Kirgeze.

Kara Kirgeze (Black Kirgeze or Dikokamens) form part of the Turk race, and chiefly inhabit the frontiers of the Semirechinsk province. The descent of the Kara Kirgeze is not known for certain; but there is reason to believe that they are descendants of the same great Uzbeg horde which was brought here by Gengiz Khan. Many ascribe their origin to the same causes as our Cossacks. It is said that they were slaves, homeless and oppressed men, who, at last losing patience, fled to other steppes in order to lead a free and independent life. This race, owing to its life in the mountains and its natural taste for pillage, which, however, has decreased considerably with its subjection to Russian power, surpasses all the other Kirgeze in boldness, dash, and military spirit. Their tribal institutions differ from the Kirgeze of other hordes in having no hereditary aristocracy. They devote themselves almost entirely to cattle breeding.

Turkmen.—Lastly, in the neighbourhood of the Kirgeze of the Adæf race, who nomadize on the Mangyshlak peninsula, live the Turkmen. Their country extends from the Caspian to the River Amu, and from the south side of the Ust Urt to the Persian

* Sart is not an ethnographical name, but applies to all the inhabitants of towns engaged in trade. The chief mass of the settled population in Turkestan belongs properly to the Tadjiks, a race of Indo-Iran extraction.

frontiers. The Turkmen steppe is for the most part a sandy district, in which wells are met with only along certain routes. The southern parts of the steppe, which extend to the Atrek and Giurgen, the branches of the Khorassan mountains, and even the mouths of the Amu, present more conveniences for life, and consequently the bulk of the Turkmen congregate at these points.

Robbing caravans and carrying off captives form the special business of this race, which in fact acknowledges no power, and is subject to no one. Some of the Turkmen, to the number of 6,000, are found moreover within our frontiers. This people, in the full sense of the word are horsemen; they are clothed partly in coats of mail, armed with shields and lances (with pennons of horse's tails), and mounted on stallions; in comparison with others they may be called warriors. Of late years, in order to attain some influence over this people, and to induce them to trade with Russia, Fort Tash-Arvat-Kal (of which we shall speak later) was founded on the east shore of the Caspian, near the Balkhan mountains.

III.

SHORT HISTORY OF THE MILITARY OPERATIONS IN THE STEPPE AND IN TURKESTAN.

Importance of the Kirgiz Steppe to Russia.—Acceptation by the Kirgeze of Russian Supremacy, and Establishment of the Frontier Line.—Measures taken by the Government for pacifying the Kirgeze, from the time of their coming under subjection until 1836.—Increase of incursions and pillage about this time.—Rebellion of Kenisara Kasimof.—Establishment of our Dominion in the Steppe on a solid basis.—Disorders instigated in the Steppe by Iset Kutebarof.—Insurrection of 1869.—Occupation of Krasnovodsk Bay, and proceedings on the Mangyshlak peninsula.—Military operations in 1870-71.

The important position occupied by the Kirgiz steppe, on the trade route between Russia and the Central Asian Khanates, has for a long time attracted the attention of the Russian Government, which aimed at the subjection of the Kirgiz-Kaisats horde. "Although this Kaisats horde," said Peter the Great, "is a "steppe and giddy race, yet this horde is the key and gate to "all Asiatic lands and countries."

The great regenerator of Russia, with the thought always uppermost of opening a new route for our trade with the East, did not succeed in realising his cherished idea; his successors, however, following up the work which he had commenced, succeeded little by little in bringing the Kirgiz people to acknowledge their subjection to Russia. In 1732, the Khan Abul-Khair, the administrator of the Little Horde, took the oath of allegiance to the Empress Anne Ivanovna. It is of course understood that this subjection, which was shortly followed by that of the Middle Horde, was merely outward, as the Kirgeze did not give up their incursions even to Sakmara and the Volga. But at first it was necessary to be satisfied with what we obtained.

The organization of our south-east frontier was commenced after a few years, in 1735, when the town of Orenburg was founded on the site of the present town of Orsk, becoming ere long the head-quarters of the military governors, and the principal centre of administration of all the Orenburg region.*

The first administrators of this region were Kirilof, Tatishchef, and then Nepliuief. Not satisfied with founding a town, they established a fortified line,† which was at that time peopled by the Cossacks of Uphim, Samara and Iset, under the general name of the Orenburg troops.‡ This line leaving Orenburg (transferred in 1742 to its present site) extended down the Ural, then called the Yaik, and passed by the forts Chernozhensk, Perevolotsk, Tatishchef, and Nijne-ozerny to the River Ilek, where it was terminated by Fort Razcypna. Up the Ural, the fortified line passed from Orenburg by the Nijni redoubt, Forts Krasnogorsk, Verkhne-ozerny, Guberlinsk and Orsk, up to the Upper Uralsk, and from thence extended to the east as far as the River Tobol, where it was terminated by the Fort Zveringolovsk.

But as this frontier line did not entirely protect the region from the incursions of robbers, and the lower course of the Ural still remained exposed, it appeared indispensable to form a similar line on the Lower Yaik. In point of fact, between 1830-40, two forts were built here, Kalmykof and Kulagin, which in their turn formed the commencement of the advanced posts of the Lower Line (*Nizovaya Linya*) and presented a fortified chain of posts, distributed on either side of Yaitsk Gorodok, down stream,—as far as the Caspian sea, where there was the fortified town of Gurieff, at that time under Cossack jurisdiction,§ and up stream,—as far as the Irtetz advanced post, where the picquets of the Iletz Cossacks|| commenced, which in their turn connected the Irtetz advanced post with Fort Razcypna. The third line was established along the River Sakmara. It commenced at Sakmara Gorodok¶ and passed through Forts Prechisten and Vozdvijen in the direction of Verkhneozerny.

There is no doubt that all these measures were productive of advantage in due course, but nevertheless the constant insurrections of the Bashkyrs and Kalmyks, accompanied with disorders in the neighbouring Yait force, and afterwards the troublous

* The Orenburg region included the provinces of Orenburg, Uphim, Iset, and Samara.

† A line consisted of a chain of Cossack settlements, or advanced posts, frequently strengthened with mud walls, or wooden stockades. There are usually 15 to 20 men at each post. The garrisons sometimes consist of as many as 150 men, according to the importance of the post.—*Translator*.

‡ Ultimately the Orenburg forces were organised by Imperial Ukase, 14. 4. 1755, and the first Ataman appointed in the person of Basily Mogutof.

§ Up to that time Gurieff, founded about the middle of the 17th century, had always held a garrison of riflemen for the protection of the fisheries at the mouths of the Yaik from robberies.

|| These were the Yait Cossacks, who, in 1720-30, moved to the River Ilek, where they founded Iletzk Gorodok, with some advanced posts.

¶ The foundation of Sakmara Gorodok, which took place at the same time as Iletzk, was laid by the Yait Cossacks, who were shifted here in order to prevent the Kirgize from carrying on their incursions to the River Sakmara.

Pugatchef times drew off the attention of the government from the peaceful development of the country for a time, and only with the gradual establishment of tranquility in the Orenburg region, not earlier than the commencement of the present century, was there at length a possibility of opening trade relations with Khokand and Bokhara. Murders and robberies, however, again suspended this trade. The instigators of these fresh and almost continuous disorders in the steppe were the Khivans, who incited the Kirgeze not only to plunder the caravans, but to make attacks on the line, particularly upon our fishermen, in order to carry them off and sell them in the Khivan markets.

At first it was hoped that the Kirgeze would be subdued by sending a detachment to punish them for their robberies and depredations; but after the ill success with which two similar expeditions had been attended in 1809, we were convinced that this means was of little use. Then commenced our occupation of the Iletzk rayon, that is to say, the district between the rivers Ural, Ilek, and Berdyanka, where the Berdyan-Kuralinsk line was founded for the defence of the Iletzk salt works. It was also decided that when trade caravans were sent into the steppe they should always be accompanied by a military escort.

In 1824, the first caravan proceeded to Bokhara under the protection of a detachment of 500 men; but the caravan was met by the Khivans and plundered. The experiment, therefore, did not, unfortunately, succeed, and meanwhile the audacity of the Kirgeze reached such a pitch that they commenced to carry off Russians, not only from the line and the Caspian sea, but even from the neighbourhood of Orenburg itself.

In order to diminish the depredations and incursions from which our fisheries, in particular, suffered, the first Russian fort, called Novo-Alexandrovsk,* was founded in the summer of 1834, on the north-east bank of the Caspian, while for the defence of the other frontiers of the empire, it was almost decided to form a continuous rampart, like the Chinese Wall, which was to extend along the steppe frontier where there was no natural protection. These works were commenced in 1836; part of the rampart was completed, but nevertheless the disorders did not cease.

The proximate causes on this occasion were the surveying of Kirgiz territory for Cossack settlements on the new Orenburg line,† and the attempt to collect the taxes (1 r. 50 c. per kubitka). These measures gave dissatisfaction to the nomads, who formed into gangs, and commenced not only to fall unawares upon the peaceful Kirgeze aïls and our frontier line, but even plundered our caravans in the neighbourhood of Novo Alexandrovsk. The principal leaders

* This fort was afterwards transferred to Tiuk-Karagan bay, on the Mangyshlak peninsula, and called at first Fort Novo-Petrovsk, and subsequently Fort Alexander.

† This line was placed in advance of the old, between the Ural and the upper course of the Tobol. It commenced from Orsk, and passed from the north-east through Forts Imperator, Konstantinof, Nikolaieff (now a town), and Mikaeloff, from whence it struck the old line between Ust-Uisk and Troitsk.

of these insurrectionary bands at this time were Kaip and Isetai, fugitives from the Bukeyef horde, who had found an asylum and shelter with the Khivan Khan.

It was then resolved to have recourse to more decisive measures for the punishment of the insurrectionary Kirgeze by force of arms. In fact, Cossack parties penetrated in 1836 to Mangyshlak,* carried reconnaissances into the Barsuk Sands, and up the course of the Khobda, dispersed some gangs, and established tranquility, which lasted throughout the following year. Before long, however, Kaip and Isetai reappeared with fresh parties to collect taxes from our Kirgeze, and moved along the Rivers Ilek, Khobda, and the Upper Tobol, in proximity to our frontiers. Cossack detachments were again despatched into the steppe, of which one succeeded in falling upon the principal gang at the sources of the Irgiz; Isetai was killed and Kaip fled to Khiva, where all trace of him was lost.

But scarcely had we succeeded in getting rid of these insurgents when there appeared a fresh leader, Sultan Kenisara Kasimof, whose name even now occupies a most prominent place in all Kirgeze traditions. His proclamation inflamed the whole steppe; he declared himself Khan of the Ordyn tribe, and commenced a struggle which gave no little trouble to our local administration.

The military operations on our side were conducted with great want of vigour; they were at one time interrupted by the pretended submission of Kenisara Kasimof, but were again commenced in consequence of the renewed audacious pretensions of the rebel; we not only did not succeed in crushing the disorder, but, on the contrary, allowed the movement to take that dangerous character of an unanimous and general insurrection, with which it was not easy to deal; the more so as it was headed by a daring, clever, and most energetic man.

Affairs remained in the same state until the beginning of 1844, when the military operations from the Orenburg line were directed by Lieutenant-Colonel Lebedef, a man of talent, and at the same time well acquainted with the steppe, and the character of steppe warfare. A series of rapid marches and destructive raids,† which in Lebedef's opinion were the only means for subduing the rebels, quickly acquired for him considerable renown in the steppe; but astonishment and respect for him increased still more when the Kirgeze saw how cleverly he pursued their leader, harassing him everywhere in spite of the superiority of Kenisara's force and his numerous subterfuges.

Unfortunately these successes were interrupted at the very outset, as Lebedef was replaced by Colonel Dunikofsky, a man quite unsuited to conduct military operations at such a critical moment. Renouncing the system of raids, Dunikofsky collected around him a considerable number of sultans, biys, and

* This expedition was undertaken by Colonel Mansuroff, with five sotnias of Ural Cossacks.

† Lebedef, for the first time, substituted a train of horses and two-wheeled carts for camels.

other Ordyns of note, of which he formed an advanced guard, on the supposition that these men, by their moral influence alone, without having recourse to arms, would succeed in bringing into subjection the aïls which had seceded from us. This calculation proved fallacious. At the time when Dunikofsky was vacillating, Kenisara was collecting his forces, awaiting the approach of the detachment to the sources of the Tobol. Here he attacked our advanced guard so unexpectedly, that the biys, sultans, and other Ordyns of rank were annihilated almost under the eyes of the detachment, without the latter being able to prevent it. This was not all. Taking advantage of another mistake on the part of Dunikofsky in following the rebels into the depths of the steppe, Kenisara made a raid on our frontiers, where he committed every possible enormity and burnt some Cossack advanced posts, threatening the entire new line "as being wrongfully formed in Kirgeze country."

Such an unfortunate issue to the expedition naturally destroyed the confidence of the Kirgeze in our power, and at the same time inspired them with awe and deference for their invincible Khan, the "Kirgiz ShamyI," as a contemporary historian calls him. In point of fact we find that the following year (1845) was one of the greatest glory for this renowned steppe *batyr*. Haughty and proud Asiatic rulers sought his alliance and friendship. Kenisara, moreover, subjected some tribes of Kirgeze, which nomadised on the frontiers of the Chinese empire, and marched to subdue the Kipchaks; but here, during an action in the Ala Tau, he was killed by the Kara Kirgeze, who objected to being subject to his rigorous rule.

These events, which entailed on our side so obstinate and prolonged a struggle, palpably showed the necessity of a more active and vigorous policy in the steppe; the best means for this was considered to be the erection of a series of forts to serve as defensive points. With this object, between 1846-48, were founded the Orenburg, Ural, and Karabutak forts.

Our advance tended much to the tranquillity of the steppe adjacent to the Orenburg line, but had little influence on the Kirgeze who nomadised beyond the River Emba, on the Ust Urt and, in particular, along the banks of the Syr Darya. Hence arose the necessity for strengthening our position on the Aral Sea, and in 1847 our first fort called Raim* was built at the mouth of the Syr Darya. In the same year was founded the Russian flotilla for the navigation of the Aral Sea.†

After this commenced our gradual occupation of the Syr Darya line, so that early in the decade between 1850-60 the chain of Russian forts extended from the side of Siberia, from Irtysh through Kopal to Fort Vernoe; and from the side of the Orenburg line as far as the Aral sea, and further along the Syr Darya to Fort Julek, about which we shall speak presently. At this period was

* The name of this fort was changed to Aral, and was afterwards transferred higher up the Syr Darya to Kazala, and called Fort No. 1.

† Steamers were introduced on the Syr Darya in the beginning of 1853.

also founded the Emba Post, built at the sources of the Emba, for the better observation of those Kirgeze who nomadised beyond this river and on the Ust Urt.

In spite, however, of all these measures, and of the fact that Khiva itself was in constant dread for its own safety, as the steamers navigating the Aral showed themselves sometimes near the mouth of the Amu Darya, tranquility in the steppe was violated more than once during the Crimean War, by the reappearance of the batyr Iset Kutebarof. The name of Iset gained renown in the steppe in 1820-30, when he took part in all the expeditions of his father Kutebar, the well known Kirgiz *barantash*.* Having plundered several caravans from Siberia as well as some from our Cossack lines, Iset, on the death of his father removed into Khiva, from whence he came in 1844 to General Obruchef with the offer of his services to the Russian Government. His services were accepted, and at first Iset was really of use to us by his influence over some of the turbulent Kirgeze; but this did not last long. Attempts to recommence his depredations, first in 1847 and afterwards in the following year, with the aid of a strong body of Tchiklins, forced us to send a detachment against him. Then Kutebarof tendered his submission, but covertly continued his relations with Khiva, and in the beginning of 1853 again renewed his incursions. Kutebarof's audacity increased at this time, particularly after his successful attacks upon the Cossack sotnia which was escorting the sultan governor Araslan Jantiurin,† and upon a small detachment despatched to fetch provisions from the Emba.‡ This revolt spread far and wide. The whole of 1856 and the beginning of 1857 passed in military operations. However, the difficulty and almost the impossibility of capturing Kutebarof, who had confederates everywhere, forced Adjutant-General Katenin, just nominated chief of the Orenburg district, to have recourse to a new means, and to promise Iset pardon in the event of his tendering unconditional surrender. These negotiations were successful, and in the summer of 1857, when General Katenin moved into the steppe, Iset came to offer submission. Afterwards Iset Kutebarof was for some time administrator of the Kabak division of the Tchiklin tribe, and in 1869 was appointed assistant to the chief of the Irgiz Circle in return for the co-operation he had afforded in introducing the new steppe code among the Kirgeze of the Tchiklin tribe.

* See p. 71 and p. 74.

† Araslan marched out into the steppe in the summer of 1855 with an escort of a Cossack sotnia and 900 Kirgeze. On the 7th July he halted for the night 140 versts from Fort Orsk. Here he was attacked by Kutebarof. A large party went straight to the khibitka of Jantiurin, whilst another surrounded the Cossacks, who were some little distance off. At the first shot our Kirgeze, to the number of 1,000, ran away; Jantiurin was killed, all the camp equipage plundered, and Kutebarof made off with his rich booty. The Cossacks retired in skirmishing order to the line.

‡ This detachment, composed of 15 Orenburg Cossacks and seven Kirgeze, with whom was Sultan Tungantchin, was surrounded by a band of 500 men. The Cossacks dismounted, and, making their camels lie down, commenced firing, but, their cartridges being rapidly expended, were killed to a man.

Not being distinguished by the capacity of Kenisara Kasimof, Iset was inferior to him as a politician, but when it was a question of daring raids, of leading gangs, committing depredations and highway robberies, he had no equal. Of colossal stature, extraordinary physical strength, reserved and taciturn, Iset was the true type of a steppe corsair and batyr in the full sense of the words, and in this we must seek the cause of his extraordinary influence and of that popularity which he enjoys in the mass of the nomad population.

From the time of the submission of Iset up to 1869, that is to say, up to the introduction of the new code of steppe administration, the Kirgeze remained perfectly tranquil. The preparatory arrangements for its introduction, and the opposition of the privileged classes, particularly of the priesthood, led to fresh troubles, which grew into an open revolt, and overspread nearly the whole of the Orenburg steppe.

Rebellion broke out from the very commencement in the Ural district. The commissions despatched into the steppe to introduce the new organisation, met with such opposition from the Kirgeze that they were compelled to return home, without having succeeded in forming half the number of *volosts*. The organisation of steppe *ayezds* could not be thought of; rebellion spread far and wide, and it was evident that it could only be repressed by armed force, for which the means at hand in the steppe were most insignificant. Since the Orenburg line battalions had been transferred to the Turkestan military district, and a considerable number of sotnias of the Ural and Orenburg cossack troops had been directed to the same place, there remained for the defence of the line only two companies of the Cossack infantry battalion and the 3rd rifle battalion, which had also been appointed for the campaign in Turkestan but was detained in consequence of the disorders which had broken out in the steppe. To these it appeared possible to add a company of the Orenburg local battalion, a detachment of young soldiers drilled with the same battalion, and some sotnias called up for service by a special order. These were all that were available until the despatch of fresh troops, which could not however arrive from the interior of Russia before the autumn; and meanwhile the Kirgeze, taking advantage of our weakness, made incursions on the line, drove off the Cossack herds and fell upon the Cossack advanced posts and villages, even those situated on this side of the Ural.* In March their audacity reached such a pitch that they had the temerity to make an open attack upon Lieutenant-Colonel Novo-Kreschenof's detachment, which had been despatched from Orenburg to strengthen the Emban post at the first intelligence of the revolt in that locality.

This state of affairs, and the appearance of Khivan bands near the Aral Sea with the object as was said of making an attack upon the Ural fort or on the Emban post, forced the commander

* Thus the Kirgeze plundered the flocks of the inhabitants of the Goryachensk advanced post. About the same time, bands of Kirgeze plundered the Iletz line, and drove off 800 horses from the village of Budran.

of the troops to make every effort to send flying columns into the steppe as quickly as possible, while for the prevention of disturbances in the future it was considered necessary to build two more forts in the steppe; one in the Turgai district on the Upper Ilek at Ak Tiube, and the other in the Ural on the upper course of the Uil, each to contain a garrison of 150 infantry, two guns, and a sotnia of Cossacks.

The detachments intended for the operations in the steppe were ready at the commencement of May, and received the following orders:—two separate detachments under Flügel-Adjutant Colonel Count Borkh and Lieutenant-Colonel Baron Stempel were told off to erect the forts at Ak-Tiube and on the Uil; two other detachments, each of 3 sotnias of Cossacks, under the command of Lieutenant-Colonels Krutorojin and Rukin, were to escort the commissions while introducing the new code into the Turgai and Ural districts. A special detachment under Major Baikof received instructions to re-establish and maintain communications along the Orsk-Kazala road. Lastly, the detachments of Count Komarovsky and Lieutenant-Colonel Verevkin were moved into the Ural steppe to operate in the district between the River Ural and the Mugojar Mountains.

The opportune dispatch of the troops and the rapid appearance of Krutorojin's and Komarovsky's detachments under the supreme command of the military governor of the Turgai district, Major-General Ballinzek, completely paralysed the operations of the Khivans, who had received additional support from the large body of Tchiklins, nomadising at that time near the Barsuks. The Khivans, alarmed at the movements of the troops, and deprived of the support which they had hoped for from the Tchiklins, retraced their steps; on the withdrawal of the gangs, quiet was not long in being re-established in the greater part of the locality situated on the Ilek, the Upper Emba and the Orsk-Kasala road. After this, the revolt was confined exclusively to the Ural district along the rivers Uil, Emba, and Sagiz, where according to report there were 20,000 Kibitkas which were unwilling to submit to the new code.

The first serious collision with an armed gang occurred on the 6th May to the detachment of Baron Stempel,* which was on the march to Uil in order to turn the first sod of the fort proposed at that place. A large (according to Stempel's report 20,000) gang surrounded the detachment and for 7 days made most desperate attacks upon it. Never in all probability had Orenburg Kirgeze collected in such large force, but nevertheless all their attacks were beaten off and the detachment reached Kazybek with the loss of a few carts. Stempel halted six days at Kazybek, but having expended his supplies, and being unable to replenish them from the line, was compelled to withdraw to the Cossack village of Kalmykof. About the same time the flying detachment of Major Priorof (from Count Komarovsky's force) had a severe encounter

* One company of the government battalion, two Cossack sotnias, and two guns.

near the Barkin Desert with the band of Mambet Ali, one of the principal leaders of the Kirgiz insurrection.

A closer acquaintance with the situation of affairs in the steppe convinced the military governor of the Ural district, Major-General Verevkin, of the necessity for concentrating as large a force as possible in the basin of the Uil, which was of importance both from its central position in the steppe and from its abounding in grass and water. Here in fact were collected all the insurrectionary bands of Kirgeze, and should the rebels be routed in this district, their retreat to the North, West, and East would be prevented, as in the first two cases they would be threatened by the Cossack villages of the Ural and Orenburg line, while to the east they would be watched by the detachments in the Turgai district. Thus, there was but one road open for their retreat beyond the Emba, where vegetation was scanty, and, more important still, where the absence of water did not allow of the insurgents collecting in force.

In order to carry out this project, Major-General Verevkin gave the following orders :—

1. Baron Stempel's detachment at Kalmykof to be reinforced by a company and $1\frac{1}{2}$ sotnias of cossacks from Uralsk.
2. Lieutenant-Colonel Rukin's detachment, which had returned from Iletz Gorodok, to move upon Kalmykof, and to remain within two or three marches of it, in order afterwards to join Baron Stempel and move upon Kazybek up the course of the Uil.
3. Lieutenant-Colonel Verevkin, posted with a detachment of two cossack sotnias and two guns on the river Kyl, to occupy Kazybek ; and
4. Count Komarofsky, with two cossack sotnias and a company of rifles, mounted on horses, to move towards the same point from the Emban Post, down the course of the Uil.

These and subsequent arrangements decided the fate of the Kirgiz revolt. In fact, scarcely had the rebels heard of the advance of Lieutenant-Colonel Rukin when they marched against him in large bodies ; but Baron Stempel's movement from Kalmykof forced them to retire to the middle course of the Uil. Here, at Kazybek, was Lieutenant-Colonel Verevkin. The rebels attacked him from all sides ; but, on hearing of the rapid approach of the military governor, with part of Rukin's and Stempel's detachments, they were compelled to disperse. Wherever they turned afterwards they met some of our detachments ready to support each other. Then, seeing no possibility of catching our troops unawares, they eventually lost courage and fled in different directions. Our detachments followed them along the entire course of the Uil and Emba, and quickly cleared this locality of the robbers, who then sought refuge on the Ust Urt. From this time the insurrection may be considered at an end. In the autumn, two rifle batta-

lions, with a battery of Don Cossacks, arrived from the interior while two Orenburg line battalions, Nos. 1 and 2, were formed at Orenburg itself. This enabled the garrisons of the steppe forts to be reinforced in winter; the other troops were called away from the line, and distributed as reserves in the towns of Orenburg, Troitzk, Orsk, Gurief, and Uralsk.

The participation of the Khivans in the revolt of 1869 was evidenced by the appearance of their gangs in the Barsuks and the rebellious proclamations which were sent in the name of the Khan to the sultans and biys of the Kirgiz race. This circumstance compelled us to be prepared for the renewal of disturbances in the following year (1870), particularly in the south part of the steppe.

The best means for the maintenance of tranquillity in the whole Trans-Emban district would of course be the formation of a military line of several fortified posts along the north side of the Ust Urt; but this line, although serving as a defence to the frontier in a true military sense, could not bring us any substantial advantage in an administrative respect, as, from its distance, it could not exercise a proper influence over those numerous tribes of Kirgeze which nomadise at one time on the River Emba, at another on the Ust Urt; and, in addition, could not prevent discontented Ordyns, rebels, and Khivan emissaries from concealing themselves as before on the Ust Urt, collecting into gangs and plundering the Kirgeze, particularly those who had submitted to the new code. Hence, without prejudging the question as to the ultimate formation of this line, the commander of the troops in Orenburg thought it would be sufficient, in the spring of 1870, to despatch in the direction of the Ust Urt as far as the mouth of the Emba and the River Chagana, near Chuska Kul, two independent detachments, whose duty it was, besides military operations, to obtain all possible information as to the intentions of the Khan of Khiva and to reconnoitre sites for forts.

Simultaneously with these proposals, bearing upon operations on the Orenburg frontiers, there arose the question of our occupation of some point on the east bank of the Caspian Sea, both for the defence of our trade and branches of industry from the incursions of Turkmen tribes, and also with the object of directing Central Asian trade by the shortest route to the ports of the Caspian Sea. But as the carrying out of this proposal devolved upon the Caucasus troops, it was resolved to place Mangyshlak and Fort Alexander under the Caucasus government, as communications could be more easily kept up between the garrison and the Caucasus across the Caspian Sea than with Orenburg across the waterless desert of the Ust Urt, difficult both in summer and in winter.

At the end of 1869 a small detachment of Caucasian troops landed in Krasnovodsk bay. They made several reconnaissances, and after leaving a small garrison at the Muravieff creek, ultimately marched, in the spring of 1870, to the Balkhan mountains, where, in the bed of the supposed old course of the Amu, they erected the fort called Tash-Arvat-Kala.

Meanwhile, at the commencement of the spring of 1871, the Mangyshlak commissioner, Lieutenant-Colonel Rukin, marched into the steppe in order to introduce the new code among the *Adaef Kirgeze*. On the shores of Sartysh bay, where he arrived on the 24th March with an escort of 40 Ural Cossacks, he was met by a mass of Kirgeze, who showed themselves very hostile. Parleys led to nothing, and as the Kirgeze would not hear of the new code, and on their part put forward demands which could not be conceded, the only course open to Rukin was to return to the fort, which he did in skirmishing order, as the road back was occupied by the rebels. The situation of the detachment, at a distance of 120 versts from the fort, was exceedingly critical, but the rifled gun of the cossacks made such an impression on the Kirgeze that after several attempts to stop the detachment they showed a wish to resume parleys. The cossacks dismounted, and were immediately surrounded; part were killed, and part carried off into captivity. Lieutenant-Colonel Rukin, not wishing to share their fate, shot himself with his revolver.

The Kirgeze celebrated this event as a great victory, and expected important results from it. In fact, the annihilation of the detachment, by weakening considerably the garrison* of Fort Alexander, placed it in a very difficult position; the more so, as, immediately afterwards, the commandant received intelligence of the enemy's intentions to blockade the fort, and, if possible, to seize it before aid could come from the Caucasus.

The revolt, which commenced in the middle of March, spread with such rapidity that at this time (towards the middle of April) the whole country had risen. The Kirgeze were in arms in the whole of Mangyshlak,—murders, robberies, and every possible violence were rife, and ultimately reached such a pitch that after annihilating Rukin's detachment, capturing and burning Nikolaef and the shore beacons, the Kirgeze besieged Fort Alexander, burnt the suburb, and were preparing for the assault, when the arrival of help from the Caucasus forced them to abandon their intention.

At the approach of summer, which brings the bulk of the *Adaefs* to the frontiers of the Ural district, the appearance of *Adaef aïls* on the Emba and Sagiz gave apprehensions of fresh disorders in the Orenburg steppe. Simultaneous reports of the intentions of the Khan of Khiva to build forts at Cape Urgu and Karatamak, with the object of moving troops from thence towards the mouth of the Syr and to the Ust Urt, forced the commander of the Orenburg military circle to despatch some detachments in anticipation to the lower course of the Emba. These detachments were distributed as follows, under the supreme command of Major-General Bizyanof: the right, which had marched to the lower part of the Emba, at Isen-Berdy, under the command of Lieutenant-Colonel Saranchef; the centre, with which was Bizyanof, on the central course of the Emba at Kondaral; and the left, which had proceeded beyond the Emba, at Jebysk, under Lieutenant-Colonel Baikof.

* Two sotnias of dismounted Uralsk Cossacks, with whom there were about 40 horses, for patrolling purposes; armament, 14 guns.

Besides this, a special reserve was left on the Uil, under Lieutenant-Colonel Novinsky, which was to move according to circumstances, either to the left flank, should the Khivans attempt to move to Karatamak, or to the middle Sagiz, if the Adaefs made their way northward in considerable numbers from Kon-daral.

The object of these detachments was to drive the Kirgeze bands, who were hostile to the new code, back to the Ust Urt, and, by taking away their flocks, to deprive them of their means of existence.

This task was accomplished by Saranchef, who, after dispersing the rebels at Lake Mashé, passed beyond the Emba, and in the course of June succeeded in ridding the district between the lower course of the river and Mertvy Kultuk (a bay in the Caspian) of the insurgents. In the autumn, Lieutenant-Colonel Baikof moved through the Ust Urt, passed lake Asmantai Matai, and reached Myn-Su-Almaz without meeting a single gang; but on his return journey a small part of his force was attacked, of which we shall say a few words.

On returning from his raid to the point from which he had started, Baikof intended to move at once to Chushka-Kul, where there was good underfoot grass; but as there were not sufficient camels to carry all the baggage, it was proposed to continue the journey in two echelons. When the first echelon reached Chushka-Kul the camels, with an escort of 20 Cossacks, were sent back to the River Chagan, to fetch up the baggage of the remaining detachment. The convoy was attacked by a large band of Kirgeze, near Cape Chagrai.* The cossacks defended themselves for $4\frac{1}{2}$ hours, until assistance arrived, when the robber gang fled into Khivan territory.

These energetic operations could not fail to have an excellent influence on the general situation of the steppe, and in 1871, tranquillity was broken only by the appearance of marauding gangs on the Orsk-Kazala road. The detachments despatched into the steppe employed themselves in throwing up entrenchments on the Lower Emba, near Lake Mashé, and in reconnaissances to the Ust Urt and the banks of the Aral.

The reconnaissances of Saranchef showed that the entire littoral region of the Aral Sea, commencing from Perovsky bay to Akh-Ty-Kenda, 80 versts below Karatamak, presents no obstacles to the movement of detachments of 500 men and a train of 600 horses and camels, as throughout this district there are wells at not greater distances apart than 30 to 40 versts. According to the information of Kirgeze well acquainted with the locality, the further road along the shore to the mouth of the Amu is still more favourable, as the grass and water become better the nearer we approach to Kungrad.

* This cape is one of the high points of the "North Chink."

IV.

Military operations against the Khivans ; Incursions of the Yait Cossacks.—Expedition of Prince Bekovitch-Tcherkassky ; Campaign of Count Perovsky.—Incursions of Khivans on the Syr Darya line.—Commencement of Collisions with Khokand ; Capture of Ak Mechet, and engagements at Kum-Suat and Fort Perovsky, on the Syr Darya line ; Military operations against the Khokandi from Siberia.—Campaign in Turkestan ; Successes of General Tchernyaëff ; Combat at Irdjar and Capture of Khodjent, Ura Tiube, and Djizakh.—Foundation of the Turkestan Military Circle, and the latest military operations therein.—Capture of the towns of Karshi, Kitab, and occupation of Kuldja.

THE first collisions of Russian troops with Central Asian tribes occurred at the end of the 16th century, when the warlike Yait Cossacks settled on the River Yaik, and soon became a terror to their neighbours.

Not being satisfied, however, with the booty afforded in the wretched steppe, the Cossacks took to plundering the merchant vessels in the Caspian, and destroying the Persian colonies on the coast. During one of these raids they happened to capture some mounted traders, from whom they learnt of the existence of the rich territory of Khiva, and at once resolved to make war upon it. They formed a fresh party, and, crossing the Kirgiz steppe in light order, without any train, and no other baggage than that which could be carried on their saddles, they attacked the chief town, Urgentch, at a time when the Khan and the troops were absent. The town was destroyed. The Cossacks carried off a thousand women, and loaded more than a thousand carts with a rich booty ; but, in consequence of the incumbrance caused by the train, were overtaken by the Khivans on their return journey. The Cossacks, although surrounded and cut off from water, fought for several days consecutively, quenching their thirst with the fresh blood of the slain, but at length they were nearly all killed by the Khivans. Only a hundred men succeeded in making their way to the Amu Darya and hiding in the reeds, from whence they calculated upon gaining the Yaik ; but after 15 days their hiding place was discovered, and not one of them succeeded in reaching his home.

The Cossacks did not recover very rapidly from this serious blow, but after a time, they once more moved upon Khiva 500 strong, under the command of Ataman Nechai. The raid was made unawares, but, when retiring with their heavy spoil, the Cossacks were once more overtaken by the Khivans whilst crossing the Syr Darya, and were again slain to a man.

The third campaign, undertaken by Ataman Shemai, ended still more unfavourably. The Cossacks strayed off the road, and instead of Khiva struck the shores of the Aral ; the winter came on, frosts commenced, storms raged, and the Cossacks had nothing to eat. "At first," says the historian, "the Cossacks killed one another in order to eat the dead body, but at length from

"sheer exhaustion, they sent for the Khivans and voluntarily gave themselves up into slavery."

For the fourth time, the Russians moved upon Khiva in the reign of Peter the Great, when the enticing intelligence, that there was auriferous sand in the River Amu, and that the Khivans were purposely concealing that circumstance in dread of bringing the Russians to their country, attracted the attention of the Tsar, who, as we know, was occupied at that time with the idea of opening mercantile relations with India through Turan.

The expedition was entrusted to Prince Bekovitch Tcherkassky, and demanded much preparation, as, before taking the field, defensive points had to be selected on the Caspian Sea, and forts constructed at Cape Tiuk-Karagan, and at the entrance to the Alexander and Balkhan bays, as being more suited for maintaining communication with Astrakhan.*

After securing his position in this manner on the eastern bank of the Caspian, Prince Bekovitch collected his forces† at Gurieff Gorodok, at the embouchure of the Ural, and from thence, in June 1717, marched across the Ust Urt into Khivan territory. At first it was proposed to send simultaneously with this detachment a second, from Krasnovodsk bay along the old bed of the Amu, but, probably, the sickness which broke out in the coast forts, and the impossibility of collecting in the steppe on the east bank of the Caspian the necessary number of horses and camels to carry the baggage, forced Bekovitch to give up this intention and to operate with the one detachment from Gurieff. He marched continuously, fearing lest the underfoot grass should be burnt up, and after two months halted on the River Amu, 150 versts from Khiva, having traversed 1,350 versts of sandy steppe in the hottest season, when the heat was terrific, and the only water was that obtained with great difficulty from wells dug at each resting place and night halt.

In expectation of being attacked by the Khivans, who had approached in considerable force, Bekovitch placed his detachment with its back to the river, and on the other sides surrounded it with a barricade formed of the wagons. After an engagement lasting for three days, the Khivans were repulsed, and hastened to enter into negotiations, promising to comply with all the just demands of Bekovitch; but scarcely had the latter, trusting to their oaths, gone off to the Khan in order to make his conditions, and at their proposition, consented to divide his detachment into several parts in order to facilitate supply, when the traitors fell upon the Russians and annihilated the detachment in detail to the last man. The troops, who were left in the forts on the Caspian, on hearing of the fate of their companions, and after suffering much misery from insufficiency of water, sickness, and frequent attacks on the part of the Turkmen, hastened to return to Russia. Thus the

* These were Fort St. George, Alexander, and Krasnovodsk.

† Bekovitch's detachment consisted of two companies of infantry, mounted on horses, one dragoon regiment, 2,500 Yait and Greben Cossacks, and also Nogai Tartars and Kalmyks,—in all, 3,300 men and six guns. Three months' provisions, carried on pack camels and horsed carts.

expedition ended very unfortunately; but it showed, in the first place, that a march across a barren and waterless steppe is possible even for a detachment of 4,000 men, in the hottest season; in the second place, that the Khivans cannot face our troops under any circumstances; and thirdly, that the ill-success of the campaign, arising from the great want of prudence on the part of Bekovitch, was only due to accident.

Unfortunately, the preparations for the Persian Campaign which followed, and the campaign itself, turned away Peter's attention from Khiva; home events, and the constant embroilment of Russia in European wars, were the cause of our military operations in Central Asia being deferred until 1839.

In that year, our troops, under the command of Adjutant-General Perovsky,* were again moved into the steppe, across the Ust Urt, to the Khivan frontiers, in order to occupy the Khanate, liberate the captives, and open the way for trade. But this campaign ended very unfortunately, although there were no military operations.† Severe frosts, hurricanes, deep snows, and insufficiency of grass, forced the detachment to return when half way from Orenburg, their loss being incalculable; nearly two-thirds of the effective strength of the men, 9,000 camels, and an immense number of horses died on the road of disease, cold and hunger, and the remainder returned to the line in a most pitiable and exhausted state. It was remarkable that the percentage of deaths was particularly high in the infantry and the Orenburg Cossacks, where one out of every three or four men died, whilst among the Ural Cossacks the deaths were only one in 80 men, which can only be explained by the latter being accustomed to hardships and by their special suitability for steppe campaigns. The cost of this expedition amounted to 6,500,000 paper roubles. But scarcely had the unfortunate detachment reached the line, when the Emperor Nicholas ordered immediate preparations to be made for another campaign against Khiva. This alarmed not only the Khivans but the English, who used all their influence to force the Khan to comply with our legitimate demands, and to issue a firman prohibiting Russian people from being detained in his dominions against their will. Another campaign was then deemed superfluous, and peaceful relations with Khiva continued up to 1847, when our first Aral fort was founded on the banks of the Aral Sea.

The Khivans could not view with equanimity the consolidation of our sovereignty on the Syr Darya and Aral Sea, and in consequence

* Perovsky's detachment consisted of 3½ battalions of infantry, 2 regiments of Ural Cossacks, 5 sotnias of Orenburg Cossacks and Bashkirs, 22 guns, and 4 rocket stands,—in all, 4,500 men and a large train, which comprised, besides the horses, more than 10,000 camels and 2,000 Kirgize camel drivers. For the defence of our magazines, fortified posts were constructed—the Emban fort, on the river of that name, and the Ak-Bulak fort, at Chushka Kul.

† On the 18th December, the Khivans, to the number of 2,000 to 3,000 men, attacked our advanced fort at Ak-Bulak, and afterwards a small detachment under Captain Eroffeff, but in both cases they were repulsed with considerable loss, and fled to Khiva.

hostile collisions became inevitable, especially after they had built Fort Khadji Niyaz on one of the branches of the Kuvan Darya, situated about 85 versts from our present Fort No. 2. In August 1847, a band of Khivans, 2,000 strong, crossed the Syr Darya, attacked our Kirgeze, and pillaged more than a thousand families. In the middle of November they repeated their incursions in the Kara Kum desert, and in March 1848, were bold enough to appear on the right bank of the Syr, where they pillaged and slaughtered the Kirgeze. Three hundred mounted Turkmen made incursions to the very walls of the Aral fort, and afterwards showed themselves on the Syr Darya port. The troops sent out against them put the robbers to flight, and caused Khiva itself to tremble for fear of a Russian invasion. Their terror was so great that the Khivans became humble and ceased to make raids. Their advanced fort, Khadji Niyaz, was destroyed shortly after.

Meanwhile, from 1850, hostilities commenced on the part of the Khokandi, who, after building their forts in the district between Karaūziak and the Djaman Darya, plundered and oppressed our Kirgeze to such an extent that in the course of a short time they had robbed the latter of 150,000 head of cattle and horses. Although one of our detachments, in following up the Khokandi, captured their fort, Kosh-Kurgan, by storm and destroyed it, the robberies did not cease. It then transpired that the principal incursions were made from Ak Mechet, at the instigation of the local Biy, to whom all the Khokand forts on the Syr were subordinated, and that in order to subdue the Khokandi it was necessary to capture Ak Mechet at all costs.

The first attempt was made in the summer of 1852, but ended unsuccessfully, as the small detachment under Colonel Blaramberg (450 men and 2 guns) was unable to seize the citadel, and was obliged to retire; it had to content itself with the capture of the outer rampart, and the destruction by fire of everything between the outer walls and the citadel. Fresh preparations were subsequently made in the spring of 1853 for the capture of Ak Mechet, for which purpose a detachment of 1,500 men and 18 guns was assembled under the personal command of Adjutant-General Perovsky.*

Although the enemy had only 300 infantry and 3 guns to oppose to us, we proceeded to a formal siege of three weeks. This lengthened operation was due to the fact that General Perovsky, who had already met with ill success in the Khivan Campaign, acted with great circumspection and resolved not to storm until the fort walls were sprung by mines; 20 minutes after this the place was ours. The fort was immediately repaired, armed, occupied by a garrison, and its designation changed to Fort Perovsky.†

* The detachment consisted of a battalion of infantry of 750 men, 400 Ural Cossacks, 150 Orenburg Cossacks, and 30 Bashkirs. The train consisted of 1,440 camels and 1,000 carts.

† This fort was abolished in 1855.

At the same time on the Lower Syr Darya, Forts No. 1, No. 2, and No. 3 were built at Kazala and on the sites of the former Khokand forts at Kormakcha and Kumysh-Kurgan.

In this way was founded the Syr Darya line, which secured our frontiers from the attacks of the Khivans and Khokandi, and at the same time established our political and mercantile relations with these Khanates. In an administrative respect all these forts were under a special chief—the Commander of the Syr Darya Line.

With the loss of Ak Mechet the Khokandi had to renounce all influence over our Kirgeze, but as this influence was of the utmost importance to them, they resolved to renew their attempt to gain possession of that fort in August 1863. A considerable gang began to approach Ak Mechet from the side of Tashkend; but, met at Kum-Suat by a small detachment which sallied from the fort under Colonel Borodin (275 men and 3 guns), it was dispersed and driven to Djulek.

The Khokandi resolved to repeat their attempt in the winter, and on the 14th December, a mob of 17,000 men surrounded the fort, knowing that at this season of the year we could not get succour from Orenburg. But the commandant of the fort, Lieut.-Colonel Ogareff, recognising the danger of his position, resolved to undertake operations in the open rather than sustain a siege, and to rout the Khokandi by a sudden attack.

At daybreak on the 18th, a detachment of 500 men and 4 guns, under Major Shkup, issued from the fort, and taking advantage of the bad weather approached the enemy's camp. The Khokandi gave way at first, but quickly recovering, surrounded the detachment on all sides and commenced to open fire with their guns. But nothing daunted, Major Shkup delivered a vigorous attack straight at the enemy's centre, captured the principal battery, and forced his way into their camp, while two fresh detachments sent out from the fort, each of 80 men and 2 guns, took the enemy in flank. The action did not last long, and the Khokandi fled, leaving in our hands 2,000 killed and 17 guns.

After these field engagements at Kum-Suat and Fort Perovsky, military operations on the Syr Darya Line were not renewed until 1861, when the Governor-General of Orenburg, Adjutant-General Bezak, found it necessary for the security of our frontiers to occupy the Khokand forts; viz., Djulek in the spring, and Yani-Kurgan, lying on the high road to Turkestan, in the autumn.

Simultaneously with the formation of the line along the Syr Darya, we also began to approach Central Asia from the side of Siberia.

The advanced Siberian line, founded by Peter the Great along the Irtysh, and populated at that time by the Siberian Cossacks, was transferred further south towards the Khokand country, and in 1847 was completed by the erection of Fort Kopal. But not being satisfied with the security of our frontiers we occupied all the Trans-Ili district, and at the base of the Tyān-Shan erected Fort Vernoe, and afterwards Kostek, forming, as it were, our advanced barrier against the Khokandi.

The first serious collision on this line occurred in 1860. The Khokandi, to the number of 4,000, arrived unexpectedly at Kostek, calculating to gain possession of the weak forts by a *coup de main*, and afterwards to raise the standard of insurrection among the Kirgeze, and move conjointly upon Vernoe; a detachment, however, under Colonel Zimmermann, by an opportune movement, cut them to pieces, and not being satisfied with this exploit marched to the Trans Ili district, where it captured and destroyed the Khokand forts of Tokmak and Peshpek.* The siege and capture of the latter stronghold extended over 5 days, concerning which we would observe that from the time of the capture of Ak Mechet our military operations against the Central Asian forts became more decisive in their character. As if in revenge for the lost fortresses, the Khokandi, having collected in the following year to the number of 22,000, made an attack on our Uzun-Agatch post, situated between Kostek and Vernoe; but being encountered by the commander of the Alatai circle, Lieut.-Colonel Kolpakovsky, were again repulsed with considerable loss.† It is worthy of notice that in this affair our infantry did not limit themselves to a passive defence against the hostile horsemen, but advanced to the attack and dispersed them with the bayonet.

After the Uzun-Agatch affair, which entailed considerable loss upon the Khokandi, they did not risk any further attack upon us in force, and military operations were not renewed until 1864, when Colonel Tchernyaeff marched into Turkestan.

Thus, at the end of 1861, our military line towards Khokand ended on the side of Siberia at the Uzun-Agatch post and Kostek, and on the side of Orenburg at Djulek. The considerable interval (800 versts), which separated the last two forts did not permit of a perfect defence of our frontier from marauders, who were able to penetrate at any point and plunder our Kirgeze. To this we must add that the garrisons of the forts found themselves in a very disadvantageous position with regard to supplies, as they had to get everything that was necessary, even provisions, from Orenburg, or from distant Siberian centres; whereas, in the district between Djulek and Vernoe lay part of the Khokand Khanate, which enjoyed a beautiful climate and great fertility of soil. The acquisition of this district, the consequent union of the disjointed frontiers of the Syr Darya and of the Siberian line, and the supply of our garrisons from the local resources became the object of the expedition of 1864.

In order to attain this object it was proposed to operate against Khokand—simultaneously with two detachments—from the side of Siberia under Colonel Tchernyaeff, and from the Syr Darya Line under Colonel Verevkin. In June all the preparations of the government were complete. Tchernyaeff took Aulie - Ata,

* Zimmermann's detachment consisted of six companies of infantry, four sotnias, and 17 guns.

† Colonel Kolpakovsky's force consisted of three companies, four sotnias, six guns, and two rocket stands. The Emperor promoted Kolpakovsky, and presented him with the 4th Class of the Order of St. George.

Verevkin occupied Turkestan; the detachments then united under the single command of Tchernyaeff and captured Tchemkent.

Extending our frontiers in this manner we at last issued from the steppe into an agricultural district which enabled us to provide for the troops from local resources, and, consequently, to concentrate them at will. In spite, however, of these successes, the situation of our expeditionary detachments was unenviable; the captured district was over-run with robbers; the Khokandi were collecting in considerable force, besides this winter was approaching and a scarcity of provisions might set in. These considerations induced General Tchernyaeff to act with decision, and while his victories were still fresh to march to Tashkent, the capture of which would not presumably be attended with any special difficulty. On the 2nd October the troops stormed the town, but were repulsed,* and compelled to retire to Tchemkent.

Encouraged by their success, the Khokandi invaded our frontiers. Not daring to attack Tchemkent, in which the main forces of General Tchernyaeff were concentrated, they marched against Turkestan 10,000 strong, but all the efforts of the Khan Alim-Kul proved utterly futile against the heroic resistance of the Ural sotnia under Captain Seroff at Ikan. The affair took place as follows:— On receiving intelligence of the appearance of the enemy, the commandant of Turkestan despatched on the 4th December a sotnia of Ural Cossacks with a mountain howitzer, under the command of Captain Seroff, for the purpose of collecting information. About 20 versts from Turkestan, Seroff was surrounded by a gang of 10,000 Khokandi. The Urals dismounted, and after linking their horses, laid down in a small ditch, forming an intrenchment on the exposed side with their forage, provisions, and other baggage. In this position they held out for three days, and not until the fourth day, when half the Cossacks were killed, did they resolve, after spiking and abandoning the howitzer, to return to Turkestan. In this they were successful, but of the 112 men who took the field only 15 returned unhurt; of the remainder, 68 men were killed and 29 wounded.

The heroic resistance of the Urals unquestionably saved Turkestan and forced Alim-Kul to beat a precipitate retreat to his own dominions;† this permitted the government to look to the re-establishment of order in the occupied districts. With this object, at the beginning of 1865, the Turkestan province was formed from the newly conquered region and the old Syr Darya Line, and placed under a special military governor, and at the same time under the supreme jurisdiction of the authorities at Orenburg.

Meanwhile, about this time, the rumours current of the

* The storming of Tashkent was beaten off with great loss, as the walls stopped our soldiers, and we had no storming ladders with us. For the same cause the storming of Ak-Mechet failed in 1852, under Colonel Blaramberg, who, although he had ladders, found them too short.

† The Emperor promoted Seroff to the rank of Colonel, and invested him with the 4th Class Order of St. George, and all the men received the military order of merit.

assembly of Bokhariot troops on the frontiers of Khokand and the fear lest the Emir of Bokhara, profiting by the internal disorders of the Khanate, might seize Tashkent, situate less than 100 versts from our borders, compelled General Tchernyaeff, in order to forestall the Bokhariots, to occupy the Khokand fort of Niyazbek, which commands the waters of Tashkent, and afterwards to undertake another expedition against this city. On the 7th May the troops approached the city, repulsed a strong sortie under Khan Alim-Kul, who received at this time his death wound, occupied Fort Tchinez, lying on the road to Bokhara, and afterwards resolved to capture Tashkent by a *coup de main*.

After three days' fighting on the ramparts and walls Tashkent was forced to surrender.

As part of the Bokhariot troops, taking advantage of the death of Alim-Kul, succeeded in occupying Tashkent, and during the storming fought against us, in proof of which was the Bokhariot standard captured among the trophies of war, a rupture with that Khanate became inevitable.

In point of fact, the Emir of Bokhara, nearly simultaneously with our capture of Tashkent, took possession of Khodjent and Khokand, and wrote an insolent letter to General Tchernyaeff, in which he demanded that the Russians should immediately quit the city, which formed, so to say, part of the Bokhariot possessions. Tchernyaeff's stern reply, however, astonished the Emir, and forced him to enter into peaceful negotiations; but as the embassy which we sent to him was detained, Tchernyaeff collected a detachment, and in January 1866 marched to Djizakh in order to subdue the Bokhariots by force of arms.

On receipt, however, of the intelligence that our embassy would at once be returned and that it was already on the road to Samarkand, Tchernyaeff, not wishing to expose the troops uselessly to the privations of a winter in the inhospitable steppe, led them back to Tchinez; but meanwhile the Emir not only did not carry out his promise with regard to liberating the embassy, but moved a considerable body of Bokhariot troops after our detachment, threatening to attack it.

Thus, war with Bokhara became inevitable.

In the spring of 1866, on the arrival of a new military governor, Major-General Romanovsky, appointed in place of Tchernyaeff, a proposal was made to the Emir of Bokhara to return our embassy without delay, and to remove all his troops from our borders, but as the Emir sent evasive answers, and mounted Bokhariot robbers appeared close to Tashkent, General Romanovsky, without wasting time in useless negotiations, proceeded at once to military operations, and marched along the left bank of the Syr Darya to Irdjar, where the main forces of the Bokhariots were collected. On the 8th May the well known battle of Irdjar took place.

The army of the Emir hitherto deemed invincible, was thoroughly routed, and retired to Samarkand in complete disorder.

After the battle of Irdjar it was open to us either to follow the

routed Bokhariots and go to Djizakh, Samarkand, and so on, or move up the Syr Darya to the forts of Naū and Khodjent. Of these two alternatives the latter was chosen, because the possession of Khodjent would enable us to separate Khokand from Bokhara, which in a military respect offered considerable advantages. After an eight days' siege Khodjent was stormed on the 24th May.

Our brilliant capture of Khodjent, and in particular, the victory at Irdjar, which was noised all over Central Asia, were insufficient, however, to humble the pride of the Emir of Bokhara who, without deigning any reply to our peaceful proposals, continued to prepare for aggressive operations.

Then the commander at Orenburg, Adjutant-General Kryjanovsky, visiting Turkestan in person, deemed it necessary to resume military operations in order to occupy the Bokhariot forts of Ura-Tiube and Djizakh, situated at the passes of the Kashgar-Davan, and by so doing to deprive the Emir of the last fortified points in the valley of the Syr Darya. In order to carry this into effect, he took a personal part in the expedition, and after a short bombardment, captured both forts by storm. On the 2nd October, Ura-Tiube was occupied, and on the 18th, Djizakh, and thus, towards the end of 1866, our possessions extended to the south as far as the snowy ridges of the Kashgar-Davan, all the captured territory being added, at the request of the inhabitants themselves, to the dominions of Russia.

After the capture of Ura-Tiube and Djizakh, there still remained one point in the hands of the Emir of Bokhara, the possession of which might guarantee him the valley of the Syr Darya. This was Fort Yani-Kurgan, which from its situation in front of Djizakh, commanded its waters, and completely enabled the Bokhariots, in the event of a siege, to place our garrison in a very critical situation.

In order to protect themselves from such operations on the part of the Bokhariots, our troops, in the spring of 1867, occupied Yani-Kurgan; but they had scarcely done so when the Bokhariots, 45,000 strong, advanced to dislodge them. Twice did they make an attack,* and twice were they defeated by Colonel Abramoff, and were compelled ultimately to abandon their design.

Such was the position of affairs, when by an imperial decree, the Turkestan district was separated from the Orenburg general government, in consequence of the considerable additions which had been made to our territory; this district and the Alatai circle, united under the appellation of the Semirechinsk district, became a separate military circle, under the administration of the Governor-General of Turkestan and commander of the troops of the Turkestan military circle, to whom was given plenipotentiary power in the conduct of negotiations with the representatives of the Central Asian Khanates, from the side of the Syr Darya and the eastern bank of the Caspian Sea.†

* 7th June 1867 and 5th July 1867.

† The Governor-General of Orenburg was afterwards appointed to administer the western half of the Kirgiz-Kaisats steppe, whilst the Governor-General of Western Siberia was entrusted with the conduct of our relations with Western China and the defence of our Chinese frontier.

The new commander of Turkestan, Adjutant-General Kaufmann, arrived at Tashkent on the 7th November 1867, and found the situation of affairs with Bokhara so strained in consequence of the repeated attacks of Bokhariot robbers on our troops* that he was compelled to occupy and destroy the town of Ukhum, and afterwards, in the spring of 1868, to make an expedition into the valley of the Zerafshan, where the summer residence of the Emir of Bokhara, Samarkand, known in Asia as the sacred tomb of Tamerlane, was situated.

On the 1st of May, an engagement was fought on the Samarkand heights, in which the Bokhariot army was defeated, and Samarkand captured without a shot.

Afterwards, in order to consolidate our position in the Zerafshan valley, an expedition was undertaken to the town of Urgut; Katy-Kurgan, about 65 versts from Samarkand on the direct road to Bokhara, was occupied. But in spite of the series of brilliant victories recently gained, the campaign could not be considered as finished, as on the one hand the rumours of the assembly of the Shahr-i-subz people at Kara-Tiube, and on the other, of the Bokhariot forces in front of Katy-Kurgan, showed plainly that the enemy intended to continue the struggle, threatening us simultaneously at both points.

The expedition undertaken in May 1868 by Colonel Abramoff to Kara-Tiube, for the purpose of dispersing the Shahr-i-subz, was not conclusively successful in consequence of the locality enabling the enemy to avoid a decisive engagement; but meanwhile intelligence was received that the Emir of Bokhara, after completing his preparations, was already moving upon Katy-Kurgan. The commander of the forces, without losing a minute, marched to the succour of our garrison, defeated this Bokhariot Army on the Zerabulak heights, on the 2nd July, and rapidly turning back to Samarkand, relieved the city, which in the absence of the Governor-General had been attacked by a band of 50,000 men.

The defence of the large citadel of Samarkand forms unquestionably one of the most glorious exploits ever accomplished by our troops in these distant regions. The garrison of the citadel, consisting of 750 men, including non-combatants and musicians, held their ground for seven days against a gang of 50,000, repulsed several assaults, lost 200 men killed and wounded, but

* Thus, gangs of Bokhariot Kirgeze, under the leadership of Sadik, the son of the famous Kenisara Kasimoff, made an unexpected attack on Captain Onchokoff's Cossack sotnia, not far from Fort No. 1, where they cut to pieces 20 unarmed Cossacks proceeding to water; but this first negligence was atoned for by a heroic defence. Linking their horses, and rapidly entrenching themselves behind a ditch, Onchokoff held out for three days. All this time the heat was terrible, and the Cossacks were cut off from their supplies, and suffered torturing thirst. To this we must add that the corpses of the dead men and horses commenced to decompose on the first day, and by the fourth day it became impossible any longer to breathe the impure air. Not till then did Captain Onchokoff resolve to commence a retreat. The Kirgeze, intimidated by their losses, did not follow in pursuit; they returned to Tchinaz, and, under the walls of the fort, stole a drove of horses. Almost at the same time a second gang took an officer and three men prisoners at Tchinaz, and made an attack on the Cossack post at Murza-Rabat, which evidently showed a hostile feeling on the part of the Bokhariots.

maintained to the last their presence of mind, courage and stubbornness, thanks to the ability of their chiefs, Major Stempel and Lieutenant-Colonel Nazaroff.

After these defeats the Emir of Bokhara deemed it impossible to continue his military operations, and was forced to conclude a treaty of peace, by virtue of which he acknowledged the right of Russia to all conquests made since 1865, and engaged to pay an indemnity, and to reserve to Russian merchants perfect liberty of trading in all the towns of the Khanate.

But scarcely were these conditions ratified when a party of malcontents was organized in Bokhara itself, which, with Katy-Tiur, the eldest son of the Emir, at its head, commenced a civil war, the result of which was the defeat of the Bokhariot forces, and the capture of the town of Karshi by the rebels. As an insurrection in a neighbouring kingdom might do us much harm, and involve us in a new war with Bokhara, the commander of the Samarkand circle, Major-General Abramoff, after rapidly assembling the troops at Katy-Kurgan, marched with them to Karshi, and captured that town by assault. The rebels being thus deprived of the greater part of their adherents, fled to the mountains under the protection of the Shahr-i-subz Beks; but in August 1870, the Russian troops opened a campaign in Shahr-i-subz, captured by assault the towns of Shaar and Kitab, and after expelling the rebel Beks, invited the Emir to take over the management of all the country subdued for him.

In conclusion, we must mention that in 1871 military operations were renewed on the Chinese frontier, under Lieutenant-General Kolpakovsky, and ended, after a long series of engagements with the Taranches, by the occupation of the town of Kuldja, and the subjection of the Kuldja Khanate, peopled, in addition to the Taranches, by Tunganees, Chinese, and Kirgeze. The occupation of this Khanate secured the frontiers of the Semirechinsk district from the attacks of robber Taranches, deprived our Kirgeze of the possibility of nomadising by *aïls*, or even by *volosts*, in Kuldja, and lastly, assisted in re-establishing equitable trade, which during the last seven years had been exposed to every possible annoyance from the hostility of the Khan of Kuldja, as well as from the constant raids of the Taranches who plundered the trade caravans.

V.

ORGANISATION AND FORMATION OF DETACHMENTS FOR THE FIELD.

Objects with which Expeditions are undertaken in the Steppe, and the season for their action.—Strength of Detachments: composition,—Infantry, Cavalry, Artillery, Engineers; Object and use of Mounted Native Detachments; Trains; General Character of Steppe Campaigns.—Influence of locality upon us and upon our antagonists.

Steppe expeditions may be undertaken by us for two reasons; from the conduct of Central Asian rulers having necessitated hostile operations, or for the punishment of robbers for pillage and murder within our frontiers. There was also at one time a special class of expedition for the purpose of provisioning our steppe forts with warlike and commissariat stores.

The transport of stores from the principal store depôts took place at that period once or more times a year, depending both on military and on purely economical considerations. The troops were added merely as an escort, the size of which was always regulated by the state of tranquillity of the steppe, the security of the road and the size of the convoy.

At the present time the men sent to relieve the garrisons usually form the escort, and sometimes convoys move without any escort at all.

Expeditions undertaken for the punishment of Kirgeze bandits are called *poisks*, and are limited as a rule to the dispersion and annihilation of the gang, and the capture of their herds, which form their sole wealth. The best season for military operations in the steppe is the spring and autumn, when there is an abundance of water and underfoot grass everywhere. In winter it is dangerous to go out on distant raids, or to undertake serious military operations, instructive examples of which may be derived from the campaigns of General Perovsky to Khiva, and of Tchernyaeff to Djizak for the liberation of our mission which was detained by the Bokhariots.

The strength of the detachments employed in expeditions against Central Asian Sovereignties must be guided by the obstacles which nature and the foe may oppose; the fewer men the better, as the difficulties of the march can be overcome more easily, and moreover a Central Asian foe does not inspire us with any great awe. Bokhariots, Khivans, Khokandi, Kirgeze, and other neighbouring races, with which we have to deal, are neither well armed, nor have they any military training, and therefore cannot face a regular line of battle. The largest detachment ever sent into the steppe up to 1866 did not exceed 3,000 to 3,500 men, but after the consolidation of our power on the Syr Darya, where the locality between Tashkent and our southern frontiers presents many cultivated and populated oases, larger detachments seemed possible. The first regular detachment which passed through the

steppe to the number of 6,000 with train and parks, was the detachment of the commander at Orenburg, Adjutant-General Kryjanofsky, which moved in October 1866 for the subjection of the forts of Ura-Tiube and Djizak.

The composition of the detachment depends, of course, on the object for which it is intended. Raids (*poisks*) are sometimes effected by Cossack parties alone, but in some cases infantry are added, and even artillery to the extent of a couple of guns. On the other hand an expeditionary force with a serious affair in prospect should have a proportion of all arms.

From an European point of view it might appear that infantry would not play any great rôle in Central Asian campaigns, as the foe is generally mounted; besides, infantry is less suited for bearing the hardships of a steppe campaign than cavalry. But on the other hand, infantry is indispensable for seizing forts and towns, for the maintenance of captured points, for the protection of the train, and so forth. Moreover, Asiatics have a wholesome dread of the bayonet, and hence infantry produces a moral effect which is sometimes so strong that hostile cavalry can be attacked with the cold steel, as was done in the actions at Uzun-Agatch, Irdjar, the Zerafshan heights, and other places.

In order to give infantry mobility, and enable them to bear an equal share with the Cossacks in partisan affairs, they are sometimes mounted on horses, either on Cossack horses or on those hired from the Kirgeze; but when our Cossack troops are armed with rifles, there will hardly be any necessity for this to the same extent. In long forced marches infantry are also carried on camels; this has been done more than once by the Orenburg troops, and also in Algiers and in America.

At other times our steppe infantry generally make satisfactory marches, accomplishing 30 to 40 versts in the 24 hours without any particular fatigue, even in the hottest summer weather, and across such localities as the Barsuk deserts and the hungry steppes of Kara-Kum.

Cavalry, from its mobility and its value for completing the defeat of a dispersed gang, holds a very important place in the composition of a steppe detachment; still an excessive amount of it is disadvantageous, because insufficiency of water and grass is very trying for the horses. In order to keep the horses up to their work it is essential to carry corn, which adds much to the transport. The best cavalry for the steppe are our Siberian (part of whom have changed their name to Semirechinsk), Ural and Orenburg Cossacks; they are noted for their powers of endurance, their knowledge of the steppe, their skill in accommodating themselves to its ways, while in the hands of a good chief they form a trustworthy military force in affairs with undrilled Asiatic armies.

Regular cavalry are not fitted for steppe campaigns, as remount horses are not suitable, but only such as are accustomed to pass winter and summer under the open sky with scanty underfoot grass, and are able to drink not only marsh but even bitter and salt water. However much the horses of our Don and Caucasian

Cossacks may be trained to bear privations, they always succumb to the influence of the steppe climate, and in particular to the water, from which they fall sick and die.

Artillery is necessary for steppe expeditions, more on account of the moral effect which it produces upon Asiatics than for its material advantages; although in this respect also it may be of considerable use. Sometimes a single well-aimed canister is sufficient to repulse an attack, and put to flight a large body of the enemy. But as artillery impedes, to a certain extent, the movements of a detachment, there is no necessity for any large force of it, unless there is a prospect of a siege. In steppe combats, where everything depends on the rapidity and on the unexpectedness of the attack, it is more convenient to replace guns by rocket stands, the action of which produces a marked impression upon Asiatic cavalry; on this account it would be very advantageous to instruct Cossacks in their use, forming them into mounted rocket parties, as was done in the Caucasus, and during some of the expeditions in Turkestan.

Engineers must not be omitted from the composition of steppe detachments, being necessary either in the event of a siege, or defence of a fort, or for the erection of temporary entrenchments, repairing roads, bridging rivers, and so forth.

When there is a scarcity of sappers, it is necessary that the infantry should be provided with a sufficient quantity of entrenching tools, and their effective should include a party, however small, of men who are accustomed to sapper work. It would be advantageous to organize such parties among the Cossack sotnias, which are required more than any others to act independently in the steppe. But besides this it is sometimes necessary to have with the detachments a special engineer train containing pontoons, boats, ferry-boats, &c. Thus at the time of General Perovsky's expedition to Khiva, the detachment carried canvas pontoons, skin and flat-bottom boats, which took to pieces and were packed on the camels. During the campaign at Ak Mechet the detachment had in addition boats of English caoutchouc bags, which had to be filled with air. But as we are aware, these things were never used; when they had to cross the place inundated by the Khokandi, near Ak Mechet, the soldiers made rafts of reeds found on the spot with such rapidity that there was no necessity for anything else.

But besides the military part of the detachment, a few mounted Kirgeze should be attached to every expedition. These are the *djigits*, *vojaks*, and *chabars*. The *chabars* (courier, from the word *chappāk*, to run) are used solely as messengers for carrying despatches from one detachment to another, performing the double duties of post and courier. Some *chabars* carry out their duties with such zeal and speed as to surpass all belief. Cases are known of *chabars* from Fort Perovsky having reached Orenburg (1,300 *versts*) in 5 or 6 days. The *vojaks* (*västche*—at the head) guide the detachment, keeping always in front of it, and pointing out the road to the best wells. The most trustworthy Kirgeze should

be told off as chabars and vojaks, men who are acquainted with the locality, the robber haunts, and the best halting places.

Besides vojaks and chabars each detachment should have interpreters and, sometimes, according to the locality and object of the movements, a few trusty natives to collect important intelligence of what is going on in the vicinity, either from Kirgeze along the road, or by riding away to considerable distances on the flanks; in a word, to make reconnaissances. Patrols from the detachments are not to be compared with natives for this work, as they require both guides and interpreters; and moreover, if collisions occur with the natives, want of knowledge of the language may lead to unfortunate misunderstandings.

In confirmation of this we may instance the following case, which occurred in 1869 in Turkestan.

A detachment was bivouacked on the River Ilel, from whence, in consequence of disturbances in the steppe, the Kirgeze had partly gone off to their peaceful fellow tribesmen on the Ural, and partly to the rebels on the Uil. One of the officers of the detachment, who was on a fishing excursion with some of his men, saw three Kirgeze approaching along the opposite bank, armed with lances. Being at war with the inhabitants, and unable, from ignorance of the language, to ask their business, the officer sent word to camp that the enemy was in sight; meanwhile the Kirgeze, after waiting a short time, rode away quietly in the direction of the Ural. Scarcely half an hour had passed before they observed a half sotnia of Cossacks following them in pursuit. Without thinking of what had occurred, but under the influence of fear alone, they set off at a gallop; but the Cossacks did not stop pursuit, and the result was, that the latter, after riding more than 50 versts, and leaving eight horses dead from fatigue on the road, reached the friendly aul of Biy Biktur, destroyed several of his kibitkas, and, to compensate for the loss of their own horses, seized twenty belonging to the Kirgeze, with which they returned to camp. Meanwhile it transpired that the three Kirgeze, in riding out to see our winter quarters on the Ilel, had approached the officer from curiosity, and were only armed for their personal protection, on account of the disturbances prevalent in the steppe.

Lastly, the most important part in the organization of the detachment is the train.

Those who have taken part in European wars can with difficulty form an idea of a march in the steppe. We hardly ever meet with an insufficiency of water on European theatres of war; it is seldom necessary to carry a store even for one or two marches. In Central Asia, on the other hand, the insufficiency of water forms one of the greatest difficulties of a campaign, and to meet this want becomes the chief care of the commander.

There are no local supplies of food in the steppe, and consequently all stores have to be often carried for long distances.

All these difficulties, which have placed our troops more than once in a critical plight, are quite unknown to Asiatics, who are accustomed to scanty food and bad water. Steppe campaigns for

them are merely ordinary changes of dwelling. Tamerlane traversed the deserts of Asia with half a million of men.

Our Cossacks, when they first peopled the line, did not yield to Asiatics in this respect, and carried their incursions even to the Khivan territories; but it is evident that regular troops cannot act in this way, and hence it is that our detachments are unavoidably followed by large trains and convoys.

VI.

Organization of the Supply Service, and necessity of forming Store Depôts.—
Measures for Preserving the Health of the Men; Sanitary Service;
Clothing, Shelter, Food, Drink, Water, and Purity of Air.

It is evident from what has preceded, that the supply of the detachment and the procuring of transport present the chief difficulties in the preparations for a campaign. But as the distance over the grassless steppe precludes our carrying a sufficiency of stores for the whole march, they have to be replenished from the steppe forts on the road.* Formerly, when these forts were not in existence, the greater part of the supplies had to be carried beforehand as far as possible into the steppe, where temporary depôts were formed, protected within entrenchments, which, when they were no longer required, were again abandoned by the troops.

Such points, at the time of Prince Bekovitch Tcherkassky's march to Khiva, were the forts St. Peter, Alexander, and Krasnovodsk, on the shores of the Caspian sea. With the same object were built the Emban and Ak Bulak Forts in 1839, at the time of Adjutant-General Perovsky's march to Khiva.

A second most important care of a commander is that of the health of the men, horses, and pack-animals. It is found that during steppe campaigns our losses are chiefly due, not to encounters with the enemy, but to the excessive fatigues, the ignorance as to the best method of accommodating ourselves to the climatic con-

* Steppe forts are usually built according to one of the two following types:—(1.) A small redoubt, holding about 100 men, with two barbettes, and with powder magazines in the thickness of the parapet. This redoubt serves as a reduit or keep, and is usually placed so as to command the barracks, which are built outside; the walls (sun-dried bricks) of the barracks, which face the country, are pierced with loopholes. The Emban Post is built on this type. Sometimes a flank defence is given to one of the exterior faces of the redoubt, by throwing up a lunette in front, at the salient of which is a barbette (Uil Fort). (2.) The second type consists of uninhabited buildings (stables, sheds, armouries, &c.) disposed in a quadrangle, the walls of the buildings overlooking the country being loopholed. Within this quadrangle are the barracks, hospital, commissariat depôt, &c. At the corners of the quadrangle are constructed lunettes of slight profile, with from one to three barbettes. These lunettes furnish an artillery and musketry defence to the faces of the fort. On this type are built the Ak-Tiube and Lower Emba Forts. The forts are usually armed with eight 12-pr. or rifled M.L. guns. They have also one or two field guns, horsed, for sortie purposes.—*Translator.*

ditions, and the want of proper treatment of the pack animals. In the present day, when we are fairly acquainted with the steppe and the Asiatic Khanates contiguous to it, our losses are comparatively insignificant, but formerly they attained a high figure; as, for example, Prince Bekovitch, in his summer expedition to Khiva in 1717, lost a quarter, and General Perovsky, in the winter of 1839, a third part of his effective.

The prevailing sicknesses in the steppe among troops are: in summer, simple and hæmorrhoidal dysenteries and intermittent fevers; scurvy and diseases of the digestive organs, due to long residence in an unhealthy climate, monotony of food, and insufficiency of good water. It is of paramount importance to combat these diseases in the germ; and, although it is not always possible to observe every hygienic precaution during a campaign, it is necessary, at least, to see that our men get good food, fresh meat (the detachment should have its bullocks and sheep), sufficient rest, and, above all, that they should avoid catching cold, and not lie on the damp ground without a blanket. As some of the diseases may take an epidemic character and affect the healthy, the sick should not be retained with their regiments, but should be immediately sent to the field hospitals or lazarets. During the march of large detachments, it would be better to form the sick into separate organized convoys, so as not only to obviate the danger of the epidemic spreading, but also to make the order of march of the sick subservient to hygienic requirements to a greater extent than is otherwise possible. Of course the separation of the sick should only be made when the force is strong enough to allow of an escort being detached for the purpose.

The importance of a suitable organization of the sanitary service during campaigns is self-evident; but at the same time the officers appointed to command are so little acquainted with the more important medical arrangements, that we consider it not superfluous to touch upon the subject.

In equipping an expedition for the steppe, surgeons, assistant-surgeons and dressers are appointed in proportion to the number of men. This medical department is provided with the necessary medicines, surgical instruments, and special instructions. Each company should be provided with the company shoulder havresac; each battalion with a dresser's wallet. Both should contain the articles prescribed in the regulations.

Should the detachment consist of Cossacks, especially those organized as a temporary measure, and consequently without any pay-chest, they should be furnished with money for the purchase of the necessary medicines, &c.

For giving shelter to the sick, and convalescents, or for lazarets, Kirgiz kibitkas or djulameiks are used, as there are no houses or even sheds in the steppe.

It is advantageous to put a plank flooring, raised one or two feet above the ground, inside tents, kibitkas, and djulameiks; but as there is but little wood in the steppe, and its transport is attended with great difficulty, the wooden flooring is often replaced

by a rammed-down floor spread with sand, or by the use of mats. These mats should be frequently changed and beaten to get rid of the dust, which is so injurious to the eyesight. The kibitka should have a channel dug round it to drain off the wet and rain water.

As regards clothing, the experience of General Perovsky's winter campaign showed that the short jacket made of jebaga (felt of the hair of Kirgeze sheep which is quilted on linen, like wadding) and cloth jackets lined with sheepskin or lambskin, cannot replace the simple sheepskin jacket used in Russia. But as the Russian jackets are heavy, and therefore favour catarrh, it might be better to replace them by the fur of young camels (buta), covered with thick camel cloth, which gives a light and very warm clothing. Besides this jacket the winter clothing of the soldier should include loose cloth trousers with quilted wadding or jebaga knee-guards; and over them it is advantageous to wear broad linen pantaloons, as snow adheres far less to linen, and consequently this material dries more quickly than cloth.

To these we must add high and loose boots and felt goloshes; the feet, besides this, must be wrapped in woollen bandages, and on the hands gloves should be worn covered with camel or the ordinary peasant cloth. In the cavalry, in order to diminish the effect of cold on the legs, it is advantageous to envelope the stirrups with cloth or felt, or, still better, to replace the iron stirrups by the wooden ones in ordinary use among the Kirgeze.

The best head covering in winter is the warm forage cap, with peak and hind-flap of thick cloth, or the Kirgiz fur hat with ear-flaps, or, lastly, our ordinary Cossack cap (papakha).

Summer clothing varies in the steppe, according to the local climatic conditions; the papakhas, both in Orenburg and Turkestan, may be replaced by the forage cap covered with white linen and with hind flaps; stocks are discontinued, and the troops march in their simple shirts with the pouch-belts over. All the winter clothing is carried in the train, but on the approach of twilight it is necessary to wear the cloak or tunic, as without it the troops are liable to catarrh.

Asiatics protect themselves from sunstroke and the pernicious influence of the winds by wearing several robes one over the other, and sometimes envelope themselves in furs; but although this is a very rational course it demands long habitude, and therefore cannot be recommended for our soldiers.

The most indispensable part of the clothing of a steppe soldier is the waistband, hood, and leather chambars.

Soldiers should wear waistbands in summer and winter as, while keeping the abdomen warm, they give better protection than anything else against catarrh; they are particularly necessary in the southern steppe against the baneful influence of the periodical winds, "angazak" and "shildio," of which we have previously spoken.

The hood in hot weather should always be worn over the forage cap for the protection of the head from sunstroke.

Leathern chambars, from their closeness of texture, possess the

property of keeping the body cool in hot weather, and in cold do not let the wind penetrate, thereby preventing rheumatisms, which are prevalent in steppe campaigns. The chambars are worn only by our men in Turkestan; but as a proof of their advantages the Cossacks provide them at their own expense, and the local Kirgeze wear no other trousers in a campaign but chambars.

Lastly, long boots which are good in damp and cold weather are very bad in hot weather, particularly in prolonged marches across sandy steppes; the legs get rubbed and covered with sores. The best boots for this season of the year are shoes such as those worn by the French in Algeria; they are light, easy, and portable.

To all this we must add that the blinding brilliancy of the snow in winter, that of the salt marshes in summer, and especially the dust and wind, affect the eye-sight very much and cause serious diseases of the eye, even among the natives; in spring these diseases are increased by the caustic smoke of the shrubs (*saksaul*) used as fuel, when the young sap commences to rise. In order to protect the eyes some advise that the eyelids should be blackened with powder, or spectacles of black hair net or of coloured glass should be worn, but the best of all is to wear the *papakha*, like the Caucasians, the black hair of which protects the eyes as proved by experience, better than any powder or nets. The plain glass spectacles in leather rims, sold in commerce, should be forbidden altogether, as they are more injurious than anything else to the sight.

For the protection of the men from bad weather in the steppe they are provided with felt Kirgeze *djulameiks*,* instead of the ordinary canvas tents in the proportion of 1 to 10 or 20 men, according to the season of the year. Besides this, each soldier and Cossack should have a felt which serves as a blanket and gives protection against the dampness of the ground. The opinions as to whether felts protect the men from the bite of *tarantulae*, which thrive in the Kirgiz steppe, particularly on the banks of the Aral Sea, are difficult to reconcile, as the majority of observers affirm that *tarantulae* not only do not mind felts but move over them freely, ascending even to the very top of the *djulameiks*, and on cold nights creep into them for protection.

Jelieznoff, in his description of the Ural Cossacks says, that the Kirgeze generally cure themselves of a *tarantula* bite by presenting the bitten part to the mouth of a sheep, which, on scenting the odour of this insect, will suck out all the virus from the wound with the greatest gusto. But Mr. Karelin, known from his scientific observations upon Orenburg, recommends as the best

* In winter, iron ovens should be built in the *djulameiks*, but in order to keep up the heat it is necessary to close the flaps of the *djulameiks* as tightly as possible; this arrangement is disadvantageous, as it makes them very dark, and on emerging from them into the sunlight, the eyesight is liable to injury. This is the cause of the eye diseases, from which the Kirgeze ordinarily suffer in spring. If the flaps are not closed the heat will not be retained for more than an hour.

antidote against the bite of this and other reptiles, volatile alkali, in a dry state,—of which two or three grains should be dissolved in half a wine-glass of water and taken internally, the wound being rubbed with spirits of ammonia. This salt has the property of evaporating very rapidly, and should therefore be kept in well stoppered bottles, protected from the light by wrapping in black paper. In the absence of the salt six to ten drops should be taken daily internally.*

The supply of troops in a steppe campaign is regulated by the special instructions "On military organization in the Kirgiz Steppe," according to which, the following articles are obligatory: biscuit, groats, oats, mustard, laurel leaves, garlic, pepper, salt, horse-radish, essence of vinegar, spirits, tea, sugar, leaf-tobacco and soap. Besides this, as a change of food and as an excellent anti-scorbutic, the troops are supplied with dried sour cabbage. The English in Abyssinia replaced biscuit with bread, which was baked on the march. For this purpose they had portable iron ovens, erected at the different camping places, which were able, in the course of an hour, to bake 145 lb. of bread. No trials of these have been made by us, because in the first place biscuit is acknowledged to be more economical, and, secondly, the construction of these ovens is so complicated and bulky that, even in Abyssinia, they had to be carried on pack elephants.

As regards preserved meats, it is considered in the present day that they should only be resorted to in very extreme cases when fresh meat cannot be obtained, for example, in flying columns, &c. The best according to present experience is the peas-sausage with salt meat, specially prepared for steppe use.

The ration of wine is necessary for the maintenance of the strength, but on the march and when halted at steppe forts, our soldiers receive spirits; the French issue wormwood spirit (absinthe), the English issue rum, in the proportion of $1\frac{1}{2}$ drams per man in the 24 hours. It should be remembered, however, that under the influence of a high temperature the immoderate use of spirit increases and often renders ordinary illnesses like fevers incurable; it may lead to insanity, paralysis, and apoplexy. With us the ration of spirit has gradually decreased; thus in Bekovitch's march in 1717, each man was allowed about 5 fluid ounces per day. In Perovsky's march in winter 2 ounces daily. In the present day when the troops receive tea they only get 8 ounces of spirit a month.†

The use of tea was introduced in 1871, being considered a necessary accompaniment to a steppe march, both from a hygienic and moral point of view.

Hot tea is an excellent beverage, both in cold and in very hot weather; but when cold and carried in bottles it forms an agree-

* Spirits of ammonia, besides this, is useful as an external application for burns, and in cases of delirium tremens 8 to 15 drops in a wine-glass of water for a dose.

† Spirits are not issued at all in the summer, except on damp days and cold nights. In the cold season, instead of tea, spirit is issued.—*Translator.*

able and refreshing drink on the march, particularly when the water, from its bad quality, can only be used after being boiled; decoctions of tea, and, in its absence, of liquorice-root, or other similar roots, have long been in use among our steppe soldiers, particularly among the Orenburg Cossacks.

As regards the proportion of tea, the ration at present is one pound of tea and three pounds of sugar per 100 men a-day in the summer months, *i.e.*, in May, June, July, and August; in the other months it is reduced to one-third of a pound of tea and one pound of sugar.

Vinegar is necessary as a seasoning for food, both as the most effective anti-scorbutic, and for improving bad water. But in hot weather when the thermometer stands at 45° R. in the steppe, the addition of a dash even to good water is grateful. Prince Bekovitch Tcherkassky took with him sufficient vinegar to last three months, allowing each man not less than four ounces a-day.

In the steppe where there are no running streams, wells are met with nearly everywhere, dug along the routes frequented by the nomad Kirgeze, by the trade caravans, and by our military detachments. In some places, for instance, on the Ust Urt, these wells are lined with stone; and, in order to prevent their becoming filled with sand, or men and cattle from falling into them at night, they are covered with flag-stones with small circular openings for letting down a pail. The water is thus kept good, but the process of getting it is so slow that large caravans must either march in *échelons* or be provided with special arrangements for drawing water.

We would remark that the building of these wells is ordinarily ascribed to charitable persons, and is referred to very ancient times, to the era when Arab trade flourished, or to the time of the sovereignty of the Golden Horde. The majority of steppe wells built in modern times are not lined and are merely conical pits, which, from being always exposed to the sun's rays and stopped up with sand, mud, and every sort of impurity, yield dirty yellow-green unwholesome water, which is much more suited for the propagation of disease than for the maintenance of life. Moreover, the majority contain bitterly saline, and almost undrinkable water.

For the improvement of bad water different means have been suggested. The English, for example, in Abyssinia used a distilling apparatus capable of yielding 11,000 vedros daily. With us, if there is wood at hand, or even wormwood, three or four handfuls of powdered charcoal should be thrown into the well, a good sized lump of alum placed in each pail, or in the absence of either of these the water should be filtered through cloth or felt. In order to rectify contaminated wells all the water should be pumped out and the bottom cleaned out lightly; the water then trickles through the sand and the well is refilled,—the operation requiring 24 hours.

Of late years we have taken into use the portable metal wells

tried in the autumn of 1869; but in order to be useful they should be substituted for the steppe wells and left at the places where they are inserted, as is done in Algeria. If the wells are far apart and the detachment has not time to dig others, water must be carried with the train in special wooden barrels or in leathern skins (tursuks), made by the Kirgeze for the transport of kumis.

Besides this, the soldiers must have a store of water with them, if possible, in vessels or bottles, covered with felt. The block-tin kegs, covered with linen like the English, are unsuitable, as the water quickly becomes hot.

But in the Kirgiz steppe we hardly ever meet with completely waterless places. Cases have occurred when good water has been met with not only in sands and salt marshes but also under layers of salt mud. Its propinquity may be recognized by the presence of musquitos and flies, or by the vapour seen to issue from the ground an hour after sunrise.

Besides these indications unglazed clay pots may be buried in the ground, or a fresh sheep skin, and if in the morning they appear damp it is a certain indication that water is not far off.* Wells dug under these circumstances generally prove a success—Bekovitch, in his march through the waterless desert, opened 10 to 35 wells at each halting place.

Lastly, it may be said that, in the steppe, nothing is so injurious to the health of the men as want of attention to the well-known hygienic rules as to cleanliness. The exhalations proceeding from badly constructed and imperfectly filled-in latrines, from the decomposition of animal matter, from the accumulation of filth in drains, abattoirs, &c., are rapidly taken up by the atmosphere, and, in the hot weather, may produce a general epidemic with all its pernicious consequences.

VII.

Characteristics of Steppe Animals: the Camel; Local Breeds of Horses,—their maintenance in a Campaign, feeding, and watering.—Bullock Trains.

Success in every campaign depends to a very great extent upon the condition of the transport of the army, *i.e.*, the train; in steppe campaigns, upon the good quality and the condition of the pack animals which represent the train.

We therefore consider that it will not be superfluous in the first place to make ourselves acquainted with the character and nature of the animals which are ordinarily used in the steppe, both for the transport of baggage, and for the military service.

The principal are the camel and the horse.

* The presence of water may be shown by sticking a ramrod in the ground over night, and then seeing if it shows signs of moisture in the morning.

The camel, from its physical constitution, is born for sandy steppes and a dry hot climate. It has been brought into the Kirgiz steppe by the instrumentality of man, and therefore can only exist there in the quality of a domesticated animal, and as such only with very great care. The Kirgeze use camels for the transport of baggage alone, and lade them with 480 lb. to 720 lb. weight according to the time of the year. With a moderate load, and a good road, a camel can march without resting for 14 or 15 hours in succession, and complete 40 to 70 versts; after this it should have an hour's grazing on good pasturage, when it eats sufficient food to satisfy it for a whole day.

The favourite food of the camel is wormwood, thistles and coarse prickly and saline grasses, but they easily get accustomed to any sort of food, and do not require more than 30 lb. of hay to keep them in good condition. But in a steppe campaign, camels, when laden, fall off in condition unless they receive other varieties of food besides grass, and unless they are allowed prolonged rests (30 to 40 hours) after each four or five long marches.

In order to keep up their strength, it is necessary to give them some handfuls of dry forage, or should there be a dearth of it, 3 lb. of meal, and 3 ounces of salt. The unfortunate notion that a camel can remain without grass for some days has led to disastrous consequences, for example, of the 10,000 camels accompanying General Perovsky's expedition to Khiva, only 1,000 returned, the remaining 9,000 perishing from exhaustion, want of food, and partly from cold.

A camel can remain without water for seven or eight days if it only gets succulent and vegetable food; otherwise it can only hold out for four or five days. After this time it will drink 12 buckets full. There long existed a superstition that the camel keeps a considerable store of water in its fifth stomach. The naturalist, Buffon, cites an example that in the stomach of a dead camel, which had not been watered for 10 days, was found a pint of pure water, but the possibility of this is disputed in the present day by all naturalists. Brem says that such water would be undrinkable, as water when mixed with food becomes stinking.

Camels should not be used for work before their fourth or fifth year. The broad feet of these animals, with their tender soles, make them suitable for travelling over dry sands, but on rough stony ground, and in marshy places, their feet are sometimes affected with troublesome swellings. They suffer much in the cold weather; they require felt blankets and, after scraping the snow from under them, mats should be spread for them to lie upon.

Camels are of two sorts, one-humped (nar) and two-humped; the former are much more enduring, and therefore more costly than the others.

These animals, which cannot be replaced for steppe service, live for 50 years. Camel's flesh is seldom used as food, but the

milk of the female curdled and diluted with water, affords the natives a light and tasty beverage called "airian."

The principal local breeds of horses in the steppe are the following: the "Argamak," the "Kirgiz," the "Turkmen," and the "Bashkir" horses.

The "Argamaks" are bred chiefly by the Turkmen, Khivans, and sometimes by the Bokhariots. They are distinguished by their symmetry of form, reminding us somewhat of the Arab, their extraordinary vivacity, and their agility and rapidity in the gallop; but on the other hand they are exceedingly delicate, impetuous, and on that account are very liable to catch cold. On cold nights, even in summer, they must be wrapped in warm clothing, which is the reason that they do not enjoy any special favour among our Cossacks.

Much superior to the Argamak, as regards its military qualities, is the steppe Kirgiz horse. Its rough training fits it for all the variations of climate and insufficiency of grass; hence it has extraordinary muscular strength and vigour, but it grows and attains its form slowly. As a general rule the Kirgiz horse does not attain its full development for seven years, and should not be put to heavy work before the completion of its sixth year. The Kirgeze commence to break them in for the saddle in the third or fourth year; but afterwards return them to the herds until they are eight or even nine years old. These horses become excellent from this treatment. It may be remarked that the indication of the age by the teeth, according to the ordinary rules, often leads to error, as from the rough underfoot grass, particularly in salt and sandy places, the marks are worn out sooner than would otherwise be the case.

Kirgiz horses are mostly of a light colour; black is seldom met with, as it is supposed that black rapidly loses colour from the continuous action of the solar rays, and passes into brown. They are not generally well shaped, are not noted for great rapidity of pace, but they are of extremely retentive memory, and are capable of traversing considerable distances—more than 100 versts in 24 hours—without food, water or rest. An eye-witness, who has studied the Kirgiz-Kaisats horde, states that a certain Sultan, a hero in stature and strength, galloped with a Cossack escort 300 versts in 24 hours (on two horses), part of the distance over mountainous and stony ground; the horses it is true broke down in the legs, but lived and recovered without any treatment.*

Among Kirgiz horses, amblers are sometimes met with; they obtain a high price, and form an object of special vanity among rich and influential Kirgeze. The best breed of Kirgiz horse is the "Adaef," distinguished for beauty of form and size; after this comes the "Tchiklin," with a well developed muscular frame, strong and adapted for rapid and continuous galloping for hundreds

* Lieutenant-Colonel Vojak, in his description of the Kirgiz horse, says that in April 1869 a Chabar, sent by him on two horses from Aral Chi (north of the Great Barsuks) to Uralsk fort (400 versts), returned in the course of a day and a half.

of versts ; and lastely the "Siberian." Horses of the latter breed are met with chiefly in the north-east part of the steppe, and are distinguished by their size ; but they yield in speed and endurance to the "Adaef" and "Tchiklin." Generally the improvement of the breed of Kirgiz horses is impeded by the love of the Kirgiz for "Kumis," in consequence of which the mares become speedily exhausted, and the foals, being separated from the mother sooner than they should be, do not get properly nourished. To this it should be added that the horses of the Kirgeze are as a rule badly kept, while their own saddles are so ill-shaped and unsuited, both for the horse and rider, that the Kirgeze prefer to purchase them of the Bokhariots, the Khivans, or from the Cossacks on the line.

The crossing of an "Argamak" horse with a good "Kirgiz" or "Turkestan" mare, produces an excellent stock known by the name of "Karabair." This breed, possessing the qualities of the "Argamak," with the endurance and strength of the "Kirgiz" horse, is seldom met with, and hence bears a high price, and forms an object of special vanity among the natives.

The "Bashkir" horse is smaller in size, but, more impetuous, and, therefore, not so enduring as the "Kirgiz." Both these breeds are rather small and seldom attain 14 hands $2\frac{1}{2}$ inches. A line composed of such horses cannot have the same force of shock in the charge as a line of bigger horses ; this is the only reason which militates against our regular cavalry being mounted upon Kirgiz horses.

The herds of Ural and Orenburg Cossack horses, and other local breeds, consist for the most part of crosses of the Kirgiz and Bashkir breeds with the Russian, or of one or other with stallions of the old provincial stables.

Although the Kirgiz, like all steppe horses, do not require any special care or attention, yet during the severe winter and snow storms at the time of Perovsky's expedition the Cossacks found it necessary to cover their horses with rugs, and by this means preserved them, while camels and other animals were dying by thousands. A similar precaution should be taken in summer against the sun's rays by using a light cover, which should be slightly wetted with water. Without this precaution it becomes at times impossible to ride, owing to the countless number of gad-flies and gnats. There are some places on the Syr Darya where not only horses, but even camels and horned cattle, which are in a very satisfactory condition in spring, become in summer so exhausted from the attacks of flies and gnats that they perish by scores. On this account the Kirgeze, who nomadise in summer in these localities, only retain with them a limited quantity of cattle, and leave the remainder for the summer months in the Kara Kum desert.

As a general rule, steppe horses being bred nearly exclusively on sandy or clayey soil, are never shod ; but during a campaign it is necessary to have shoes in store in case of frost or a march through stony country.

The supply of forage for the horses is a subject of special importance, and demands from the commander not only his constant solicitude, but considerable experience. Observations, deduced from steppe campaigns, have shown that the most enduring and powerful horses quickly lose flesh and become weak if they are not supplied with dry forage. With this object, the English in the Abyssinian expedition carried with the troops a special sort of pressed forage, in which the hay and oats were mixed in the proper proportions. This description of forage proved excellent; being strongly pressed, it occupied little space and hence was very suitable for transport; it retained its aroma, and in spite of the disadvantageous climatic conditions, very seldom deteriorated. With us, in spite of the fact that the transport of forage is attended with great difficulties, the Cossack horses have been accustomed to receive oats or barley throughout a campaign, but hay only exceptionally. According to the present regulations for the supply of forage, horses in the Kirgiz steppe receive oats; in Turkestan—barley, or the two mixed.

The French in their Algerian expeditions do not give oats at all for fear of inducing broken wind, but give their horses underfoot grass in spring, and in autumn barley alone, to the extent of 10 lb. per diem.

In summer, both barley and oats should be given in linen nose-bags, in winter in cloth as the linen freeze quickly. In winter, however, you may do without the bags altogether, putting the forage on the snow, when the horse will eat up every bit.

With regard to watering, it is necessary to remark that as at many of the wells there are neither tanks nor stone troughs, it is necessary to provide special troughs made of leather or gutta-percha cloth, as was done by General Perovsky. In places where there is but little water, and where economy is necessary, it is important to fix the ration which just suffices for sustaining the different animals. The English fix it at $7\frac{1}{2}$ gallons for a camel, 5 for an ox, and $3\frac{3}{4}$ for a horse in the 24 hours, but as it would be inconvenient to measure the quantity, it has been found that a camel drinks half his ration in one minute forty seconds, and a horse in a minute and a half.

In conclusion, we would add that of all animals used in the train bullocks are the least suited for pack transport; they move slowly, get knocked up, and fall off in flesh with insufficient food; besides this they are timid, often fall down with their load, and thus create disorder and impede the march of the trains. Consequently we only use bullocks in draught and then when no particular speed is required. They have some advantages, as bullock carts can carry a greater load than horse carts.

VIII.

Size and Destination of a Steppe Train ; Causes of its small size in the French Service.—Russian and English Trains.—Establishment of Train for the Kirgiz Steppe,—for a company, sotnia, and battery.—Comparative advantages of Camel, Horse, and Bullock Transport.—Pack Transport : its defects.—Troop Camels.—Hospital Transport.

The amount of train in a steppe campaign depends on the quantity of provisions and other requisites which have to be carried by the expeditionary force.

The following are the chief articles to be carried :—food, forage, &c., horse equipment, officers' and soldiers' baggage, medicines and hospital stores, felt tents and the so-called camp equipage.*

Sometimes we have had to carry with us such things as wood, field-forges, bridging material, portable wells, and various heavy machines ; to carry guns on pack animals ; and lastly, to have a number of spare horses or camels in case of forming sick-convoys, flying detachments, and also for carrying convalescents, stragglers, and so forth.

From this list of necessities it is plain that the train of a steppe detachment must be very numerous. In European warfare one cart ordinarily suffices for 40 or 50 men ; in steppe campaigns it is otherwise, every 2 or 3 men must have an animal, and sometimes more. If we suppose, for example, a Cossack sotnia taking the field with a month's supplies, then, according to calculation, it will require about 80 camels, without counting officers' baggage, carts for the transport of military stores, the sick, &c. This is the reason that military detachments marching in the steppe are nothing else but an escort to their own numerous trains.

Napoleon's campaign in Egypt, where the transport organized by him was on so reduced a scale that everything could be placed within a small infantry square, cannot serve for us as a precedent, because the French were able to transport their food and other stores by the Nile. The same must be remarked respecting the later expeditions in Algeria where the French had seldom to proceed more than 2 or 3 marches from their store depôts ; but even in this case, according to the observations of Marshal Bugeaud, there were often more than 1,000 different sorts of animals with a column consisting of 5,000 men under arms.

As in the boundless steppe there is no means of communication

* The proportion of this equipage for a company of 170 men is as follows :—6 cast-iron boilers, with lids, 2 white-metal dram cups, 7 water vessels, 7 lb. pepper, 4½ lb. laurel leaves, 100 lb. leaf tobacco, 9 bottles essence of vinegar, 100 lb. onions, 10 lb. garlic, 10 lb. horse radish, 10 lb. soap, 200 lb. salt, 3 wooden troughs, 5 scythes, 170 mats, 300 fathoms rope, 3 hatchets, 3 spades, 3 picks, 7 shovels, 2 white-metal mugs, 1 eight-gallon cask, 3 wooden shovels, 1 net, 1 iron pail, 170 wooden tea cups. The weight of this is from 1,200 lb. to 1,600 lb.

except by road, nor any habitations except the steppe forts, situated hundreds of versts apart, the trains must be numerous. The smallest train, as we know, was that at the time of the Khivan campaign of Prince Bekovitch Tcherkassky, when there was a camel to every 2 men; the greatest was in the winter of 1839 in General Perovsky's detachment, where every man had 2 camels, and every 2 men approximately had a 3-horse cart.

The English train in the East Indies, and in Afghanistan, was still more numerous. Suffice it to say that, according to the returns, the train of each battalion of infantry is fixed in time of peace at 1,200 mules and 600 mule-drivers; in the field these numbers are still further increased. The reason why such vast crowds of servants and immense trains follow in the wake of a detachment, where every elephant, every horse, every camel, and every bullock has his attendant, is partly due to the climate so baneful for Europeans, and still more to the oriental habits, which effeminate the troops. Even the common soldiers had their servants, and thus, in the words of an Englishman, the military camp was turned into a motley show. Similar license led to pernicious consequences for the English during their second expedition to Afghanistan in the winter of 1841. When the detachment of 4,000 men, under General Elphinstone, was forced to retreat, the train following in rear numbered 12,000 men. This unarmed, dissolute and most demoralised mob, quickly fell into complete disorder, enabling the Afghans to surround the English detachment and destroy it, so that of the 16,000 or 17,000 men only one Englishman, thanks to the rapidity of his horse, succeeded in reaching the fortress of Jellalabad.

Consequently in the Abyssinian expedition in 1867, the English deemed it necessary to limit the baggage of each officer to 80 lb., and that of each soldier to 20 lb., including bedding. Besides this, they left behind all the officers' servants, allowing the officers to take a man from the ranks. The result was to reduce the ordinary number of mules per battalion from 1,200 to 187, and 100 drivers. But with all this, the train of the Expeditionary Force numbered 20,000 various animals.

For carrying the baggage in steppe campaigns, we use pack animals, two-horse or one-horse carts, and lastly, bullock transport. The baggage is so arranged that each pair-horse or pair-bullock cart has not more than 1,400 lb., each one-horse 700 lb., each camel load 680 lb. Naturally the two-horse carts are to be preferred to the one-horse, as with the same number of horses a less number of carts is required.

The quantity of carts or camels, and consequently the size of the train, is calculated separately for each unit,* so that each com-

* The following computation is taken from Russian sources :—

Assuming the company of infantry at 200 men, inclusive of servants, non-combatants, and officers, it requires for one month 12,480 lb. of biscuit, net weight; 2,080 lb. of groats, net; in lieu of five-sixths of the monthly allowance of spirit, 60 lb. of tea and 180 lb. of sugar, and 5½ gallons of spirit, weighing 80 lb. Oats for the draught horses 600 lb.; 15 tents (julameiks), being 10 per company, 2 for

pany may have with it, on marching out, besides its food, medicines reserve ammunition, and camp equipage, its own baggage at the rate of 60 lb. per man. The sotnias have no special carts for their baggage, but carry it with the forage; the number of carts which they require is much greater than for a company.

Independently of this, each unit must have its own train, consisting ordinarily of 2 or 3 carts per company, and in the sotnia, according to the effective number of Cossacks, calculating a pack horse for every 10 men and a cart for every 20.

On comparing camel and horse transport, we can only come to the conclusion that each possesses its advantages and disadvantages, which depend chiefly on the locality, climate, season of the year, and lastly, upon the character and aim of the expedition. In sandy and waterless regions, a train of pack camels would unquestionably be the best, as the camel bears thirst longer than the horse; it can find underfoot grass nearly everywhere, and, consequently, does not require a special store of water and forage. With a horse train we may, in waterless localities, have to use the greater part of the pack animals to carry water for their own consumption. Besides this, camels can traverse places without fatigue where a cart could scarcely move, for instance, drifting sands; but, on the other hand, protracted marching over grassless steppes, and, in particular, great cold, tell disadvantageously upon them. After the Abyssinian expedition the English complained that the camels did not bear the march well, and even the fresh summer nights were very unfavourable for them.

These considerations lead us to give the preference to horses

sick, 3 for officers, each weighing 260 lb. = 3,900 lb.; felts for bedding (10 lb. to 12 lb.) 16,000 lb.; camp equipage and anti-scorbutic stores, 1,200 lb. to 2,000 lb.; men's kits, at 60 lb., 12,000 lb.; ammunition, 2,000 lb. In all about 16 tons. If this amount of baggage be placed in one-horse carts, 1,000 lb. in each, 36 carts will be required. Of this number, for food alone ($6\frac{1}{2}$ tons) 15 carts; and as the detachments are never sent for less than two months, 50 carts will be required. To this number we must add three or four additional carts for the apothecaries, medicines, and sick on the march,—in all, say 56 carts.

The camel train for the above would be as follows:—Allowing 5 carts as indispensable, the remainder of the load would require at least 50 camels (each at 600 lb.), and as a general rule it would be better to have 65 camels (each at 560 lb.) There should be one spare camel to every 6, 7, or 10 camels.

The foregoing articles do not include all the necessities of the company. It must have fuel, portable wells, means of crossing rivers, and, besides these, two or three mess carts, and one cart for each officer. The total quantity of transport per company for two months cannot be reckoned at less than 65 one-horse carts, or 10 carts and 75 camels, exclusive of from 8 to 15 spare.

For a Cossack sotnia, consisting of an establishment of 145 men and 3 officers, 148 riding and 14 pack horses, much more transport is required than for a company. The food for the men, and oats ($8\frac{1}{2}$ quarts daily) for the horses, amounts in two months to 120,000 lb., without the sacks. The other baggage is not great; 10 or 11 jula-meiks,—7 for the Cossacks, 3 for officers, and 1 for sick = 2,600 lb., and two or three carts for the apothecary, medicines, and sick. On this computation the number of carts necessary for a sotnia for two months, including sacks and coverings, will amount to 130 or 135. Of camels for the same period, leaving five carts, there would be required about 200 (each carrying 640 lb.), to which must be added about 30 spare. If hay has to be carried, a considerable addition must be made to the transport.

The baggage of a field battery may be reckoned at the same rate as for a company, that of a horse artillery battery the same as for a sotnia.—*Translator.*

for a winter campaign, as they are less susceptible of cold ; they move more quickly along a good sledge road and draw a heavier load than camels. But we must remember that winter varies at different parts of the steppe ; places are often met with where there is no snow, and the use of sledges will therefore be limited.

Wheeled carriages, although unsuited from their little mobility and frequent breakdowns, are under some exceptional circumstances to be preferred to camels,* the more so as carts are of great use for forming a barricade. As regards bullocks, they should only be used, as before mentioned, when the detachment is not required to make rapid movements, and when the train may march separately from the troops. From what has been said it is easy to conclude that in steppe campaigns, both in summer and in winter, the baggage constitutes the chief impediment to the detachment.

One of the most important conditions of a well-ordered pack train is a good saddle, hence especial attention should be paid to this subject. The load must be divided into two equal parts, not only as regards weight, but also in dimensions. The pack should be made fast to the longitudinal ties of the camel saddle, and in order that the weight may press less upon the ribs, the upper ends of the packs should be firmly secured by ropes which are suspended over the crutches ; were this precaution omitted, the pack would soon injure the animal's spine or flanks, and render it unfit for work.

For the better preservation of certain stores from waste, such as groats, oats, and flour, these articles should be placed in double mat sacks, or in woollen sacks ; biscuit, cheese, salt, garlic, horse radish, &c., in boxes covered with mats, and these rolled up in thick felts. Artillery stores, rockets, and medical stores, are generally carried in cases, the medical stores in those boxes in which they are kept in the magazines.

The packing of artillery stores must be done with great care, so that they may be quickly got at ; the cases containing the cartridges are usually bound with ropes round the sides and bottom, leaving the top of the box free, so that a round can be at once taken out if required. Mountain and even field-guns, when they are carried on camels, should be placed so that they can be got ready for firing within a quarter of an hour.

The weight of a camel load should be limited to 700 lb. ; but this weight will depend upon circumstances, according to which loads may be classed into light, medium, or heavy.†

* An example of this is given in the operations undertaken in 1844 by Lieut.-Colonel Lebedeff, for the purpose of tranquilizing the Kirgiz steppe, which had revolted under Kenisara Kasimoff. Lebedeff found it useless to follow the light steppe bands with a heavy detachment, and replaced the camels with horses harnessed to carts. With this train he traversed the steppe without hindrance, crossed rivers, and dealt the bands of rebels such rapid blows that he speedily acquired great renown. His successor, Colonel Danikofsky, however, sticking to routine, discarded the carts and replaced them with camels. The result was that he failed not only to touch the insurgents, but had to retire behind the line.

† As provisions in sacks form our principal load, the weight of the pack will depend on the weight of the sack. Ordinarily a camel is laden with three cheverts of oats or biscuits, or two cheverts of groats, 640 lb. to 720 lb.,—taking the weight of the chevert of biscuit at 237 lb., oats, 200 lb. to 240 lb., and groats, 335 lb.

The load is generally diminished in the spring when the camels are casting their coats and are weak, and increased in the autumn, particularly if there is a probability of good forage, when the roads are good and when no great speed is required. Then the load may be increased to 800 and even 880 lb., which is about the weight with our traders' caravans. On the other hand, the English calculate the normal load at 560 lb., and the French and Arabs at 800 to 960 lb. In Algeria the French use pack-mules, donkeys, and also carts, which they lade with 1,600 to 3,200 lb.; camels are seldom used except from necessity, owing to the difficulties of lading, and the care which they require.

The following are the defects of a camel transport:—(1.) The lading and unlading occupy much time. (2.) The different packs are not equally convenient to carry, and it is better to have carts for heavy stores such as guns, powder, and such like. (3.) Large numbers of hired natives are necessary as drivers (one to every six camels and a head man for the whole train). These men, from their knowledge of the animal, are indispensable, but they cannot be trusted, and instances have occurred where they have deserted to the enemy at the first shot. Laziness and carelessness often place a detachment in a critical position, as was the case with the English in Abyssinia. Kodolitch, in his account of this campaign, says "the want of order in the organization of the train parks, and particularly the absence of proper care on the part of the drivers, who were nothing but a rabble, led to great losses among the animals, and placed the detachment in a very critical situation; the want of forage and provisions became every day more apparent, while the exhausted animals were not in a condition to make another march, and perished by hundreds, encumbering the road with their carcasses, and tainting the air, which might have led to disastrous consequences for the whole expeditionary force."

As the demand for a large number of camels causes a rise in the tariff for the transport of traders' goods, some Powers, in order to avoid this and to render themselves independent of native drivers, have deemed it advisable to breed their own camels.

In China, up to the last insurrection, the government maintained in the steppe contiguous to our frontiers, whole herds of camels.

The East India Company maintained in India 40,000 camels for military purposes.

The French, after the conquest of Algeria, at once proceeded to breed camels, but their attempts did not meet with success for a long time. At length Marshal Bugeaud, Governor of Algeria, issued special instructions and rules for breeding these animals, placed this branch under military control, infused strict order into it, and attained remarkable results, the French soldiers proving themselves as well fitted for looking after the camels as the Arabs themselves.*

* Camels for military purposes were first used by the French during Napoleon's campaign in Egypt. They were formed into detachments of a hundred, and afterwards of seven hundred dromedaries, which were used both for transport purposes and for forming flying infantry columns.

We made similar trials in the Kirgiz steppe, but after some unsuccessful attempts, had to give up the matter. In the event of our requiring them, the requisite number of camels is hired generally through agents, or, under pressing circumstances is requisitioned through the local commands at a special rate of pay fixed on each occasion by the chief commander of the district.*

In conclusion, we will say a word or two about the adaptation of steppe transport to hospital purposes. For the transport of sick and wounded are required:—

- (1.) Soft camel saddles.
- (2.) Pack hammocks and arm chairs for camels or mules.
- (3.) Ordinary and covered litters; and
- (4.) Carts.

During Napoleon's march into Egypt the sick were carried upon camels in special boxes, the sides of which folded down so that the wounded might, if necessary, stretch out their legs. In Algeria, the French used at first pack arm-chairs on mules as they are easier than camels, but they afterwards used waggons with 6 horses, carrying 10 to 18 sick.

The English, in addition to their packs and carts, use hand litters, but this is very inconvenient, as in open litters the sick are exposed to every change of weather, and the closed ones are very heavy and demand instead of 4, 6, or on bad roads 10 to 12 bearers; at every halt, too, the sick have to be placed on the ground, which cannot fail to be injurious to their health.

With us during steppe campaigns, cases have occurred where the sick have been wrapped in a felt, and in this way suspended to the camel saddle; but in Perovsky's winter campaign, hammocks were used filled with hay or camel's hair, with warm felts as coverings. Although the sick were more or less cramped in this arrangement none were frost-bitten in spite of the 25° to 35° of cold (Reaum). These hammocks were subsequently replaced by soft camel saddles and kuyafs (two light arm-chairs with a step for the feet; the chairs connected by iron bands passing through the saddle), but in the present day the sick are carried in ordinary carts. Although the contractors are obliged to provide certain covered carts for the sick, this is not always done, and besides, even the covered Russian telegas offer no conveniences for the sick, especially in long journeys over the steppes where there are no roads. The carriage of medicines is also very inconveniently arranged in our service, as when a certain medicine is wanted from the ordinary medical chest, the entire contents have often to be turned out, causing a loss of time, and damage to the drugs.

* Camels are used by us not only for pack purposes but in harness for drawing heavy loads. In some parts of the Kara Kum desert, along the Orsk-Kazala high-road, the camels take the place of the post horses, and as such carry both mails and passengers.

IX.

Field Marches.—Order observed on the March, and Length of the Marches.—March of Count Borkh to the Sam.—Moving from the Night-Halt, Night Marches, Halts, and Rest Days.—Selection of Site for a Bivouac: its formation, and distribution of the detachment in it.—Outpost Service.

We have already said that a military detachment in the steppe of Central Asia is in a strict sense only a caravan or train moving under an armed escort. It is self evident that such movements must be subject to certain rules, and these are mainly dependent upon the formation and march of the train, which forms the essential part of every expedition.

Were it possible to move in the steppe without dread of attack or of the herds being plundered, it would be unquestionably more convenient to move like the trading caravans, in a few small columns, each of which acts for its own economical and material advantage. But in this case it would have to give up its unity as a detachment, and forego the observance of military regulations and precautions. Evidently such a march would be impossible for a military detachment, which must at all times be ready to repulse the enemy, no matter from which side he may appear.*

Hence from a military point of view it might appear more suitable for the detachment to move in one general column. This is done in those parts of Turkestan where no difficulty is apprehended about water and grass. In the Kirgiz steppe, on the other hand, we must remember that the movements of large detachments are nearly everywhere attended with much inconvenience.

Firstly, we cannot everywhere find grass and water in sufficient quantities for the large mass of cattle which ordinarily composes our train.

Secondly, we have to distribute our animals over a very large area to find pasturage, and consequently it becomes difficult to collect and to defend them.

Thirdly, in passing ravines and rivers, there being no roads in the steppe, the large train is forced to halt, so as to be formed gradually into a chain; and the longer the halt the more fatiguing to the animals: and lastly,

In the fourth place, the various descriptions of animals have different paces; thus, the camel can accomplish over a sandy road five versts in the hour, the horse only four; bullocks can never do more than three versts per hour, and are a perpetual cause of the train being lengthened, and of the march being delayed, thus depriving the other animals of part of their rest.

Large detachments should be divided, if necessary, into parts or *échelons*, which follow at one or even two marches distance

* In dangerous places, when an attack is apprehended, the trade caravans likewise combine and move forward on a broad front, so as to be able to repel the enemy at any moment.

from each other. The order of march cannot be made subject to any definite rules, as it depends entirely on the local conditions of the country, the size of the detachment, the character of the enemy, and other causes. The French in Egypt, and afterwards in Algeria, moved ordinarily in the form of several squares, at gunshot distances apart, or in three parallel columns, of which the train formed the centre. But this is only possible with their small trains, and, moreover, it is necessary on account of the spirit of enterprise of the Arabs. We only use the square for bivouacs, the square being formed of waggon-barricades with the troops within it.

In order to diminish the depth of the column during the march, the train must move in close sequence and in strict order, extending along both sides of the road in several chains, and so arranged that the camels and carts in one chain carry the same sort of stores. In camel trains, the heavy stores (such as biscuit, flour, &c.), are placed as much as possible on the outer flanks of the column, so as to form the barricade more quickly, and to cover the men from the enemy's fire.* If the train consists of carts alone, it moves in two or four lines, at such intervals apart that at any minute by a simple wheeling up it can form square. If the train is a mixed one, the camels march in the middle between the lines of carts, and if there are few carts, the latter are formed in one line, the camels being on that flank where the enemy is least expected.

The Cossacks form the advanced and rear guards; they send out patrols on all sides, and furnish mounted men for the train, who have to aid the drivers in lading the carts or animals, and generally look after the interior economy; without this arrangement any disorder which may take place in one part of the train might be transmitted through the whole of it, and cause delay or confusion in the march.

The infantry may march either in the centre between the lines or at the side of the train, but in all cases in line at open order, so that those in rear may suffer less from dust. It is only necessary to see that the troops do not lag behind in the steppe but keep near the train, so that if required they may quickly join it. On the other hand, when marching in propinquity to the enemy, the cavalry precedes the detachment, after it the guns, then the infantry, further on the train, and lastly the rear guard, in accordance with the usual order of march prescribed for field marches.

In the event of a sudden attack by the enemy when on the march, the train halts and forms a barricade, endeavouring, if possible, to *appui* its flanks on some natural obstacle, such as a river or ravine. To form the barricade, the leading carts move from

* But it sometimes happens that the arrangement of the carriages according to kind is impossible, as in order to equalize the loads, one superintendent, who is in charge of several carts, is given a varied cargo, and therefore they are distributed throughout the whole detachment.

† For example, if we have to halt a camel whose pack has slipped, or a broken down cart, they are led away to the side, so as not to impede the others, and then, after readjustment, they rejoin the tail of their chain, or, if not, the rearguard.

both ends to the left and right, close up and then reversing to the rear so as to protect the horses from the enemy's fire, form the front face; the flank faces are formed of the carts following on the sides of the road, and the rear is formed like the front. Carts should lock their wheels together, the horses should be hobbled; while the defence of the angles should be increased by unharnessing some carts and placing them in front of the opening, so as to prevent the enemy from penetrating within the barricade.*

A camel train forms up in the same way, but the packs are thrown off to form an outer rampart, behind which the camels lie down under cover. It is well to hobble them, otherwise, if there is any firing it is impossible to keep them in a lying position.

It may not be superfluous to speak of the defence of the transport when compelled by reason of the narrowness of the road to march in one chain. In this case all that can be done is to move with part of the force to meet the enemy, and endeavour to detain him on the spot until the whole transport is in a state for defence, and the remainder of the troops have gone inside. Or, better than a single square, it may be formed into small circles near the road along which the troops are moving. Generally, it should be remembered that the duty of every commander of a train is to defend it to the last; it is far better to be repulsed on two or three days with loss of part of the detachment, and lastly, it is better for the whole detachment to perish with honour, than to lose the train, and by that perhaps to endanger the success of the entire expedition.

The length of a march in the steppe depends chiefly upon the localities where drinkable water can be found, and may be said to vary in extent from 20 to 45 or even to 50 versts. Large transports and detachments of troops can seldom do more than one march in the 24 hours; but light Cossack parties have accomplished as many as 100 or 150 versts, without suffering particularly from want of food or water.

An example of a long march, executed rapidly and over difficult ground, was that of Count Borkh to the Sam, in May 1870. This campaign was undertaken with the object of exploring the roads leading across the Ust Urt, and, if possible, to seize the aïls of the hostile Kirgeze of the Chumishli-Tabyn tribe, which were the chief haunts of all the robber gangs roaming here from Kungräd. For this purpose Count Borkh resolved to traverse the northern Chink, and by a rapid forced march to seize those aïls which nomadised on the Sam, to which place only small Cossack parties had hitherto penetrated.

In order to become acquainted with the difficulties which our troops had to overcome during this remarkable campaign, it is necessary to remark that the plateau of the Ust Urt is bounded on all sides by a scarped, steep cliff, which, as we have already said, is called the Chink. This cliff, which attains in some places a con-

* Others find it more convenient to place the carts obliquely to the faces instead of perpendicularly, hooking the wheel of one cart into that of the next.

siderable height (400 to 600 feet), descends to the low-lying steppe with such steep terraces, encumbered with rocks and boulders, that it is only accessible at a few known points. At other places the Chink is nearly inaccessible, and only pedestrians and the clever horses of the Kirgeze brigands are able to make their way over the steep cliffs, and the great boulders which overhang terrible precipices.

In order to avoid encountering the Kirgeze during their peregrinations, Count Borkh resolved not to take the detachment along the roads nor to be encumbered with trains; he took merely three days' supplies carried on the saddle, and as many rounds as could be packed in the limber-box.

The detachment consisted of a sotnia of Orenburg Cossacks, 60 riflemen mounted on horses, and 1 gun, which was taken for the purpose of seeing if artillery could pass over this country.

In the first march the troops had to cross in succession 5 or 6 precipitous places caused by the sinuous form of the northern Chink. These passes were so bad that men and horses fell every minute. The artillery horses halted at the first pass; the gunners had to unhook and drag the gun up and down by means of ropes, with the aid of 50 dismounted Cossacks. In spite of these obstacles the detachment marched 90 versts, and did not rest until it had descended to Kurgan-Tchagai on the following day.

Here commenced the sterile sandy steppe, where there was no underfoot grass and only water at long intervals in the wells, 200 feet in depth. Continuing the march, the detachment made 90 more versts, and reached Kuskut; but to proceed further was impossible, owing to the want of supplies. The aïls, which nomadised with the Biy Daūt-Asaūf, one of the most avowed enemies of Russia, had moved off within a few hours of our arrival, and the fresh traces seen in three different directions showed the uselessness of any further pursuit. Upon this the detachment returned, and on the sixth day reached Jebyske, having traversed more than 400 versts of roadless steppe, without water, grass, or supplies. The insufficiency of the latter with the detachment was so much felt that the men, even on the fourth or fifth day of the campaign, were obliged to kill and eat a Cossack horse; but for all these privations, and in spite of the thermometer standing at 38° R. by day and the frosts by night, there was not a man sick, and of the horses only 12 had sore backs, due to the riflemen being unaccustomed to riding.

As the staple food of the pack animals is underfoot grass, we must in steppe campaigns move out from the night-halts as early as possible, so as to finish the march by daylight, and give time for the pack animals to graze. But if the animals have passed the night within the wagon-barricades, and consequently without grass, the detachment must not march out before 6 or 7 A.M., so that the animals, driven out to pasture at dawn, may pick up some food.*

* In 1869, General Balliuzek, during his march through the steppe, ordered the purchase of sickles for the Cossack detachment, and as the long marches did not

Large expeditions, accompanied by a considerable quantity of cattle, and moving across the barren steppe or salt lands, must be careful in the selection of night-halts, and should send forward small parties to seek for and clear out the wells, which are often choked up with sand, and are sometimes filled in with rubbish in order to impede the march of the detachment.

All marching is usually done by day. The heat of the southern nights, and the circumstance that the heat prevents the pack animals from eating except at night, completely excludes the possibility of a night march. To this we may add, that when men are deprived of their night's rest by a march, and cannot rest by day on account of the heat, they become exhausted much more quickly than when they march in the heat and rest at night. It is of course understood that this rule does not apply to partisan raids, which are frequently executed on the darkest and wildest nights.

Halts and rest-days are to be avoided in the steppe; the first because they deprive the animals of a considerable part of their time for repose at the night-halt, and the second because they protract the duration of the campaign without any advantage; they also increase the quantity of forage required, and consequently the amount of transport. Therefore both rest-days and halts are subject to no fixed rules, and depend entirely upon circumstances. Sometimes, particularly in winter, it is advantageous to hasten the pace without halting, lest the camels lose their strength.* In lengthy marches of 40 to 50 versts, it is sometimes necessary to make a long halt after half the journey, and give the camels relief by removing the packs. The privations and losses sustained by the detachments of Colonel Berg in 1825,† and of General Perovsky in 1839, were chiefly caused by want of acquaintance with the nature and habits of camels.

When the route taken by detachments in the steppe passes among Kirgeze *volosts*, it is necessary for the detachment to be accompanied from one *volost* to the next by the chief men of the horde, who should, as far as is compatible with military authority, look after the preservation of order between the men and the Kirgeze.

We will now pass to the question of a bivouac. In selecting a locality in the steppe for this purpose, reasons connected with supply rather than those of a purely military nature prevail. From a military point of view the steppe is everywhere good, as it offers no variety of position, nor those local objects which are of importance in engagements in European countries. We must only take care that the bivouac is not placed in a valley or ravine, but in high

admit always of the horses being driven to pasture, the men mowed the grass and fed the horses inside the wagon-barricade, which helped much to keep them in condition.

* It is known that camels, when there is no store of good grass, are not only not rested by short halts in winter, but lose flesh very fast.

† This expedition was made for the purpose of making a topographical survey of the steppe between the Ural line, the Caspian and Aral Seas, and Khiva, with a view to reconnoitre the roads and determine the time most suited for an expedition to the Khivan Khanate.

and dry places screened, as far as possible, from the wind. Good water, abundant pasturage, and sufficient fuel are the conditions which steppe bivouacs should fulfil, but which are seldom met with in combination. Thus in the northern part of the Kirgiz steppe good water may be found nearly everywhere, and succulent underfoot grass; but instead of wood we have to use dung-cakes, or the roots of certain plants. In the south part of the steppe, on the other hand, there is fuel, but no underfoot grass and little water, which is procured from ditches, and for the most part is of bad quality.

As the selection of the locality for the bivouac exercises great influence on the preservation of the animals, we must not, when the train is large, limit the drivers in their selection of the place which they may think convenient for pasturage, even if we have to stop short of, or pass beyond, the position indicated in the marching route. Of course this rule must not be considered absolute in the presence of the enemy, when the detachment is moving with some definite military object.

With respect to Turkestan, it should be remarked that, in order to preserve the health of the men during the hot weather, we must refrain from bivouacking on entirely open places, but make use of the gardens which are found in every town and nearly every village. Such bivouacs are not only convenient for the men, but advantageous for outpost duty, as the high walls with which the Sarts usually surround their gardens, afford a natural shelter; we have only to throw out small picquets in front of these walls to give sufficient security to the detachment.

In the presence of the enemy the detachment ordinarily bivouacs behind a waggon-barricade, formed as on the march. But if the transport be small, and the place selected for the bivouac offers one of its sides to a river, ravine or other obstacle, which is secure from an unexpected attack, the wagon-barricade may, in order to gain internal space, be arranged in the shape of a lunette with its open side towards the natural obstacle. On the other hand, if the train be large, it is preferable to form a square, the carts being in several rows, and sufficient room being given for the reception of the horses, not losing sight of the possibility of bringing a fire to bear upon the enemy from behind the carts. The length of each face of the square should be in proportion to the number of men defending it. The angular spaces are filled with bales or occupied with guns.

The troops are ordinarily distributed parallel to the faces of the waggon-barricade, and at such distances apart that between them and the inner row of carts in rear there may be sufficient space, in the event of attack, for bringing up artillery or reserves.

The men's kits are heaped up in rear of their own particular section, and behind them are piled their muskets. The Cossack horse-lines are in rear of the line of the bivouac, and behind them in the centre of the barricade, are the staff, the artillery park, the engineer and hospital trains, the sutlers, and lastly, if there is room, the drivers with their horses and camels in a separate square.

By day it is necessary to take advantage of any opportunity of sending out the animals to pasture, but they should be again brought into camp at twilight, and, if possible, placed within the barricade,—the camels near one of the faces most removed from attack and the horses in the horse-lines and hobbled.

In the event of making a long halt at the same place, the great care of the commander should be directed to the water, as upon its good or bad quality depends in a great measure the health of the detachment.

If the detachment be encamped on a running stream, the latter should be divided into four sections; of these the upper section should be kept for drinking and cooking purposes, the second for bathing, the third for the horses, and the fourth for washing clothes. But if the detachment be halted near wells, or at a lake, where the water is scanty and where it is impossible to divide it off, the water for the horses and for washing clothes must be taken out in tubs or pails. The men should never be allowed to drink unfiltered water, as in the steppe it is impregnated with infusoria, nor to lie on the ground during the morning and evening dews; the quality of the food should also be watched. It is very advantageous to employ the men in slight duties, exercise being the best preventive against disease and scurvy. Thus the Tchushkakul detachment was employed in building quarters for the commanding officer, kitchens, bread-ovens, baths, and underground store rooms.

For the defence of a camp, both by day and by night, it is necessary to throw out a chain of dismounted posts; but as a very considerable tract of country can be overlooked from one or two eminences, this circumstance may be often turned to advantage for diminishing the number of posts and lightening the outpost duties. These isolated posts furnished from the Cossacks are called *mayaks* (signalling stations). Each *mayak* consists of 3 men; one of them always remains mounted, while the other two rest; they go separately to water, to get grass, &c. At night the camp should be surrounded with a chain of sentries, and generally the detachment should be on the *qui vive*, as the robbers often make a dash at the camp, and, taking advantage of the commotion which ensues, endeavour to carry off the camels and horses, or to seize anything they can.

In order to support the outposts, pickets, and *mayaks*, in the event of attack, there should be a mounted detachment always kept in a state of readiness, horses saddled, head collars on, and picketed.

The patrols should not confine themselves to the road alone, but always ascend the hills from whence they can see the whole of the country bordering the road. They should examine everything, ascend every hill, and search every ravine, valley, or other likely locality in which robbers might be in ambush.

The protection of the herds, particularly of the horses, forms one of the chief cares of the commander of a detachment. It is necessary to remember that by the least negligence the herd may be cut off by an insignificant robber gang, and that it may be

scared by the least cause and gallop off into the steppe. The deprivation of their herds may place a detachment in the most awkward plight, as with the loss of its pack animals it cannot move from the spot.

In order to prevent such accidents stringent measures must be taken :—

(1.) The herds must be accompanied by day and by night by mounted sentries.

(2.) Cossacks must establish double sentries round the herds, one of the men remaining always mounted.

(3.) The horses of the herd must be hobbled.

(4.) Neither the horses nor any of the animals should be allowed to quit the waggon-barricade for pasture until the watch pickets have taken up their positions, and the patrols have made their reconnaissance in the neighbourhood of the camp.

(5.) The pickets must not leave their posts until the herds have been driven back to camp.

(6.) The Cossacks guarding the herds should be near the chain of sentries, especially at night, and not in the middle of the herd, as the lighting of a pipe, a loud cry, or a restive horse ridden by a Cossack, may be the accidental cause of the herd taking to flight.

We would observe that if the herd is scared, the camp should not be alarmed nor should any one be allowed to gallop after the herd as it will only cause the animals to increase their speed. The best way is to endeavour to cut it off by making long detours round the flanks. When the herd is thus intercepted, it should not be driven back at once, but an interval should be allowed until the horses recover from their fright, and this is generally known by their beginning to crop the grass.

In 1869, when Count Borkh was returning from the aül of Amantai Tiuliuf-Bergenef, a herd of 800 horses was frightened. By following the foregoing instructions not a single horse was lost, although they had galloped 12 versts away from the camp.

Besides the Cossack pickets and sentries for the protection of the herd, guards are placed at the angles of the waggon-barricade. These guards throw out a chain of double sentries, and in the event of attack are the first to meet the enemy. Besides these there are sentries on the horse-lines, the arms, the powder, the artillery park, the commissariat, &c., and when the water is scanty, or at wells, there should be sentries also, or it may happen that the water will not be sufficient for the whole detachment.

In order to preserve the health of the men they should not be on sentry duty more than 1 out of 3 days.

In former times the detached Cossack posts, pickets, and small forts along the Siberian line, protected themselves by throwing out sentries on commanding eminences, and at night by patrols; but owing to the small number of men and the frequent alarms, the outpost service was so fatiguing that the Cossacks had recourse to the use of dogs. These dogs were exceedingly watchful, and at

the smallest noise barked and roused the Cossacks. This custom was probably brought from the Caucasus, in fact, from the shores of the Black Sea, where the employment of dogs was in general use and where these animals were regularly rationed and trained.

X.

Difference between Military Operations in the Kirgiz Steppe and in Turkestan.—Kirgiz Robbers, *Barantas*, and the operations of Kirgeze *en masse*.—System adopted for the Defence of the Steppe.—Composition of the Field Force in Orenburg.—Ural and Orenburg Cossacks: their Mode of Employment.—Military Operations against Armed Bands.—Special Cases of the Use of Infantry.

In former lectures we have indicated in sufficient detail those peculiarities of the Kirgiz steppe and Turkestan, which, in a measure, regulate the mode of march of the troops, their supply, &c. As regards the mode of conducting warfare and the character of the engagement itself, differences are met with in the operations of our troops against the Kirgeze and against Central Asian powers, which vary with the character and the military organization of our antagonists.

Although steppe warfare has as yet been imperfectly worked out from a theoretical point of view, the experience derived from prolonged steppe expeditions is so important, that on the whole they must serve as a guide and basis for the operations of our steppe detachments.

In the open and boundless Kirgeze steppes, where the locality enables the enemy to move in all directions, the success of military operations is dependent mainly on rapidity and surprise. Hence the operations, on the part of the Kirgeze, take the character of raids, and are often accompanied with highway robbery and pillage (*barantas*).

In affairs with antagonists, equal in armament and drill, the Kirgeze are sometimes the superior; but the attacks on our detachments, no matter how unexpected and impetuous they may have been, have seldom succeeded. If there have been contrary cases (for instance, the misfortune of Bekovitch-Cherkassky,* some successes of Kenisara Kasimof or Iset Kutebarof, and lastly, the annihilation of Colonel Rukin's detachment at Mangyshlak), they have always arisen from *carelessness*, proceeding from over self-confidence and contempt for the weakness and insignificance of our antagonists.

Military operations in the Kirgiz steppe have been of two kinds; (1.) Against large rebel gangs. (2.) Against small robber parties, recruited principally in Khiva from our fugitive Kirgeze.

* Treacherously murdered by the Khivans, whose army was composed of Kirgeze and Turkmen.

But as these fugitives, in their turn, are subdivided by us into two categories, each of which pursues a particular *rôle*, it will not be superfluous to say a few words about them.

To the first of these categories belong exclusively such men as Khan Galy Araslanof, Sadyk Kenisarin, Nazar Bai, Daüt Asavof, Azbergen Munaitpasof, and others,—these were sultans, honourable biys, descendants of renowned *batyrs*; and lastly, the chiefs of some Kirgiz tribes, men who have enjoyed great influence and have gathered around them all the bold and daring spirits among the Kirgiz immigrants. They undertake incursions often from mere audacity or ambition; but acting under the influence of fanaticism and revenge, they are distinguished by violence, cruelty and fetishism. The custom of bringing in the heads of prisoners, as a proof of their bloody victory, forms the exclusive attribute of the brigands of this category.

To the second category—the Baigushes, as we call them—belong the rest, that is to say, all those whose only means of existence is their plunder, and whose unlimited love of booty and avarice abase them to a level with highwaymen and horse stealers; these are the steppe wolves who are not squeamish as to what they get, and destroy everything they cannot carry off.

It is impossible, of course, to deny that the former element has participated in these steppe disorders, the more so as the Khivan government has its share of the plunder and, consequently, is only too willing to give them countenance.

With regard to the formation, organization, and mode of operation of the robber gangs, we must remark that when preparing for a raid the Kirgeze get their horses into excellent order, but in other respects do little. For food they take only a small quantity of sheep cheese (*krüt*), a few handfuls of millet, and, in the event of a successful raid, they get dried meat. The clothing of *batyrs* consists always of a *khalat* tucked into their *chambars*, and their armament is a lance, sword, and sometimes a battle-hammer. Their want of knowledge with regard to the manufacture of powder and the difficulties in the way of purchasing it are the causes of the Kirgeze having no fire-arms up to the present day.

Generally, if a collection of armed Kirgeze, with their *khalats* in their *chambars* and their horses' tails plaited, is observed in any particular aül, it is almost an unmistakable sign that they are preparing for a raid, and on receipt of this intelligence the detachment should be on its guard.

Isolated marauding enterprises take place ordinarily in spring or autumn after the corn is cut in Khiva, and therefore the most dangerous months are the end of April, May, September, and October. In the spring the robbers find underfoot grass everywhere and good water before it has run off the ravines after the melting of the snows; and in autumn they are helped by the dark and long nights. Besides this, theft is more rife during the return journeys of the nomad Kirgeze to their winter quarters, particularly in the southern steppe; firstly, because the robbers, by carrying out their depredations far from the centre of their

summer haunts, are better able to conceal the traces of their crime, and secondly, they are compelled to do so from the necessity of preparing their dried horseflesh for the winter. In summer, owing to the heat, the incursions are made less frequently and are mostly the result of exceptional occurrences in the steppe; for instance, Kirgiz tribal feuds or disorders like those of the insurrection in 1869. In winter, owing to the difficulty of moving over the deep snow, and the want of underfoot grass, raids are not made. The case of the attack (in February 1869) on Lieut.-Colonel Novokreshchenof's detachment, and others similar, may be considered as exceptional, proper only to a certain season and peculiar circumstances.

The only road by which the gangs can approach us is by the Ust Urt.* From thence some of these gangs move through the deserts of Sam and Myn-Su-Almaz to Emba; others pass through Karatamak, or Kashkar-ata, and afterwards penetrate to the Barsuks, or even to the Mugojar mountains. From these latter points the raids are chiefly made on the Orsk-Kazala road, and are extended eastward as far as the Ul-Koyak river where the summer dwellings of the Kirgeze of the Kazala circle commence, and northward as far as the postal station of Bash-Karabutak, and even to that of Damdynsky situated near the River Or.

In all this district the most dangerous localities are the postal station of Katykul, the neighbourhood of the Irgiz, Syrala, and Chulak-Kairakta postal stations, as in their vicinity are many glens and ravines which, extending from thence to the Mugojar Mountains, afford excellent places for concealment and for the sudden raids of marauding gangs.

These attacks are usually made as follows: after emerging from the Khivan frontiers, the principal bands lie in ambush on the Sam, in the Barsuks, or in the Mugojar; some small parties then proceed onward and lie concealed in any glens they may find, or among the sandy hillocks, entrusting the capture of the herd to a few selected horsemen. The latter, shouting at the herd, drive it straight to the lurking place of their companions; these take it up and drive it onward to the main robber camp, and the members of this drive the booty in their turn to the Khivan frontiers. Meanwhile the small parties return home by neighbouring roads, and often make an incursion in another direction so as to mislead our patrols.

But if the party in the open find that they are pursued, they first endeavour to discover the strength of their antagonist, and if this proves insignificant, they leave the herd under the escort of a few horsemen, while the remainder fall upon the adversary, whom they sometimes follow up with great boldness. Thus, in 1871, 40 Djigits of the Kabakof division, while following up (on two horses each) a gang of robbers, who had plundered their camels, fell into an ambushade of 100 men and were surrounded on all sides and

* The author speaks here of the Kirgiz steppe within the Orenburg jurisdiction.

carried off as prisoners to Kungrad. On the other hand, if the robbers find themselves in presence of a superior force they leave their booty, and dispersing on all sides endeavour to elude pursuit.

The raids of large bands, numbering 25 to 100 men, or more, are usually made upon the postal villages, travellers, the mails, and generally where the robbers expect an armed resistance. A raid, directed exclusively upon a peaceful aül with which the robbers have some tribal difference, is called a *baranta*; the gang approaches the unexpected aül by night, lies in ambush, and before daylight falls with a loud cry upon the herd, endeavouring before all things to cut off the horses so as to deprive the adversary of the means of pursuit. Afterwards, in the confusion which ensues, they plunder the aül, seizing everything upon which they can lay hands. This engenders endless enmity among the Kirgeze, and forces them to have recourse, for self defence, to the maintenance of patrols, which, under these circumstances, defend the aül with great vigilance in view of their own personal interests. As regards the performance of duties by the Kirgeze, it would be a mistake to trust to Kirgiz patrols alone, when they have to defend the borders of their *volosts* and *üyezds*,—(1) because the Kirgeze have no strict notions of the preservation of the public peace, and (2) because a short sojourn of the Kirgeze at fixed points brings no substantial advantage, while they will not remain for long in consequence of the material expenses entailed, and from their being unaccustomed to the monotony and inconvenience of patrol service. Moreover, although they at first take to the work with zeal, they usually cool down in a short time and commence gradually to draw off under various pretexts.

In 1872, however, attempts were made to form the Kirgeze into a mounted militia, and the experiment was crowned with complete success, owing to the zeal and tact of the chief of the *üyezd*. The Djigits, to the number of 200, were distributed partly at Karatamak and Issen-Chagyl, and partly in Kashkar-ata, and up to the arrival of our detachments continued to patrol the southern frontier, which remained entirely exposed that year in consequence of the Kirgeze taking advantage of the favourable spring to commence their peregrinations northward sooner than was usual; the robbers could easily turn this to account by following up without particular difficulty the traces of the aüls, not only to the Barsuks but even to the Mugojaras. It would not do to be led away by an exceptional case, as it were, and to found on this fact the possibility of forming, as some think, a permanent Kirgiz militia. It seems to us that this measure in any case would be premature. It is necessary to remember that the maintenance of such a militia would lay a heavy charge on the whole Kirgiz community, and at the same time the advantage of such a force is subject to grave doubt; it is unfitted for warfare, while for the collection of information trusty spies are the best.

As a general rule Kirgeze, like all Asiatics, act to much less advantage when in masses than in small parties. They usually

expend their whole store of energy and bravery on the first onset, and if the latter fails, particularly if any of their party are killed or wounded, their bravery at once vanishes, and a panic fear ensues. The Kirgeze naturally endeavour to make their attacks in superior force, and then only when they do not expect a serious resistance. To show them a field piece, or, in its absence, the chimney of a *samovar*,* as was done by a caravan of merchants proceeding to Bokhara, produces a great impression.

The Kirgeze seldom defend themselves in their aûls, but endeavour, on the approach of troops, to move off beforehand to the sterile and waterless districts of the steppe. In order to delay pursuit, they fill up the wells after them, or set fire to the steppe, thus destroying the grass and water arrangements. This happened with Iset Kutebarof, who, when eluding the pursuit of Lieut.-Colonel Plotnikof (in 1857), destroyed the wells and grass in the deserts of Asmantai-Matai, and, in consequence was obliged to seek refuge on the Sam, which was then guarded by the Ural Cossacks.

The system which may be considered, in the present day, the only one for protecting the steppe from robber gangs, must include the watching of all roads from Kungrad. With this object, at the commencement of early spring in each year, small detachments should be sent into the steppe and distributed at certain points, commencing from the Lower Emba Fort, through Kondoral, to the Emban Post, and from thence past Chushka-Kul and Jebyske to Karatamak. For guarding the Orsk-Kazala road, within the limits of the Irgiz *uyezd*, it is proposed to post mobile reserves at certain points in lieu of distributing the Cossacks in small parties at the stations on the post road, as has hitherto been the case;† but these will only be necessary when we have large detachments in the southern part of the steppe.

The most important points in the Irgiz *uyezd* to be occupied by our troops are the sources of the Bas-Kainar, lying to the S.W. of the Jalovla station, the crests of the Mugojar mountains, near the River Terebutak, in the direction of Urkach; and also the locality near the River Yakshi-Kairakta, Manaülié, Lake Chapta-Kul, and, lastly, the Barsuks, Great and Little, from whence the north shore of the Aral can be watched, and communications maintained with the troops of the Emban *uyezd*.

The military forces at the disposal of Orenburg for operations against the Kirgeze, consist, besides the local troops partly distributed in the forts, of two line battalions on a war footing,‡ and of the Ural and Orenburg Cossack troops, and the horse artillery attached to the latter.

The Cossacks, from their number and from the fact that they are the only cavalry in the district,§ occupy a very large place in

* A sort of tea urn on a large scale.—*Translator*.

† At the present time each post station, in lieu of Cossacks, has a few Djigits (2 to 6 men), who are required to collect information and warn our mobile detachments of the appearance of robber parties.

‡ The 3rd Orenburg line battalion has been since added.

§ Regular cavalry are not considered suited for service in the steppe. They are more costly to maintain than Cossacks, who cost little more than infantry.—*Translator*.

the military organization of our steppe detachments. In point of fact, all the field duties in the steppe ordinarily devolve upon the Cossacks; they give the patrols for the pursuit of robber gangs and bear the brunt of the campaigns. They are exceptionally suited for hard work, and are well acquainted with the steppe, but their military value depends greatly on the degree of foresight and ability of their commanders.

There was a time when the ceaseless raids of Kirgeze and other neighbouring races forced the Cossacks to be in a constant state of preparation for war and sustained their martial spirit. All these Kirgeze, Kalmyks and Bashkirs were then dangerous enemies, persevering, inexorable, and unacquainted with fear or fatigue. Their system of warfare was a constant series of unexpected raids. Their braves (*djigits*) having collected in parties, crossed the Ural, and attacked the Russian villages in the Cis-Ural, and even in the Cis-Volga steppes. The Cossacks concentrated at that time in the little town of Yaitzk, could not evidently anticipate their incursions, and therefore could do no more than destroy the hostile camps, and repay themselves liberally for every pillage and murder. These reciprocal raids were most bloody and led to an endless series of fresh robberies and devastations.

But with the spread of our real influence further and further into the steppe, the building of forts, and the despatch of detachments, the Kirgèze became convinced of the impossibility of doing as they pleased with impunity; their incursions ceased, and, by the force of these circumstances, the Cossacks were transformed from turbulent warriors into diligent and peaceful husbandmen. The periodical expeditions into Turkestan served to them as schools of warfare, from which, in conjunction with their glorious traditions and the adoption of measures for improving their military organization, great results in a military sense may be expected.

With regard to their employment in the field, there are two opposite opinions; some think that the Cossacks should as a rule act by the charge, with the cold steel; others recommend the use of fire-arms as the only true means in such cases as *pursuit*. Some Cossack commanders in pursuing Kirgeze make their men dismount and open fire as long as they are within range, deeming this the best mode of proceeding, as the adversary has no fire-arm, whereas he can wield a lance as well as a Cossack. Thus, as both base their opinions on experience, it would be impossible to pronounce a judgment either way. In any case, owing to the special conditions of steppe warfare, the Cossacks should be trained to both systems, so as to give them their necessary independence.

Cossacks are taught to fight on foot with a two-fold aim: (1) the offensive, and (2) the defensive. The first is inapplicable to warfare in the Kirgiz steppe, and hence we will pass at once to the second, that is to say, linking the horses, which from time immemorial has been in use among the Cossacks. This is usually done as follows: having linked the horses in a circle, the men kneel down and meet the attack with file firing, not with volleys.

The Cossacks know that it is sufficient to pick off a few of the best horsemen, who are generally in the front, in order to cool the ardour of the remainder, and throw the whole gang into disorder.

If they have to retire, it must be done step by step, firing and bringing off the linked horses. Sometimes the Kirgeze open out and make the way clear for the Cossacks, in the hope that the latter will mount and gallop off. But the Cossacks, taught by experience, never fall into this trap, knowing that for every man there will be ten Kirgeze, and that it is impossible to cut their way through and escape.

But if circumstances compel them to a stationary defence, as for instance, when they are expecting succour, it is advantageous to protect their horses even partially from the enemy's fire by artificial cover, which will at the same time prevent the enemy from approaching the position. Hence the Cossacks should be instructed in field works, at any rate so much as to enable them to throw up a low rampart, or to contrive defences from the materials on the spot, such as carts, packs, provision sacks, &c.

The Cossacks, when placed in such a position, and resolved to defend themselves to the last, have been seldom conquered by their antagonists. The roll of glorious deeds accomplished in the Caucasus, in Poland, in Turkestan, and lastly in the Kirgiz steppe, bear eloquent testimony to that great moral force which the Cossacks possess.

As regards the pursuit of robber bands, this is best of all entrusted to Cossacks. But as the horses of the Kirgeze are better trained and prepared, their trappings lighter, and the circumstance of their men being mounted with two horses enables them to give the latter a rest alternately, and thus accomplish long journeys, the pursuit of the robbers becomes so problematical, and so seldom succeeds, that we must seek some other more likely plan; this plan consists in discovering their haunts, and anticipating the possibility of an irruption of the gangs. All other more or less fortunate attempts at destroying the robbers have been so exceptional, that they cannot and must not be accepted to prove a general rule.

We will give the following instances of the mode of carrying out pursuits.

At the commencement of 1871, a party of robbers captured a herd of horses belonging to the Kirgeze of the Khodjykul Volost, and on their homeward journey, between the Kyzyl-Djar and Syrala station, took the station clerk prisoner with his son and the driver. A cart abandoned by the party at the side of the road was the first indication of the crime, and the commander of the Irgiz üyezd being acquainted with the habits of the robbers, at once dispatched in pursuit half a sotnia of Orenburg Cossacks, under Captain Bobrof, with instructions to intercept them by the shortest, but at the same time waterless, road to the Barsuks.* After accomplishing 200 versts

* It is a curious fact that the robbers, after a raid made to the north of the Karasai station, proceed with their booty to the Mugojar; if to the south of that station they go to the Barsuks.

in three days, the Cossack advanced guard descried the robbers resting at the Kyzyl Kuduk* spring, 70 or 80 strong. The Kirgeze were nearly all in deep slumber, their horses unsaddled; the herd was grazing in the steppe, and evidently the moment for attack was exceedingly well-timed; but on the first cry, "Urūs!" the Kirgeze mounted their horses so rapidly that they were already on the road to Karatamak before the Cossacks came up with them.

In spite of the exhaustion of the Cossack horses, which were evidently no match for the fresh, recently fed and watered, horses of the Kirgeze, Bobrof, leaving 20 men in reserve, at once moved in pursuit with the remainder. The Kirgeze galloped for some distance, but on observing the small number of Cossacks, gradually drew rein, and turning quickly round, charged with their lances. The manœuvre was so unexpected and sudden that the Cossacks were obliged to dismount in order to repel the attack with their fire-arms. In this skirmish the Kirgeze lost their leader, Kuken, and 25 killed; but by taking advantage of the time gained, they had succeeded in driving the herd so far away that it was useless to follow it any further. Bobrof and 3 Cossacks were wounded, one mortally, in this affair.

It is curious that on this very day one of our sotnias, proceeding to Irgiz, passed the night at a place only 10 or 15 versts from the scene of the skirmish, and although it saw on the next day some articles of Cossack kit, it did not pay any attention to the circumstance, and yet its co-operation would probably have led to the ultimate destruction of the robbers.

Matters turned out very differently when Captain Agapof was sent by Colonel Sarancheff with half a sotnia of Orenburg Cossacks to escort a detachment kitchen. Coming unexpectedly in the desert upon a gang of robbers, with a herd evidently plundered from our Kirgeze, Agapof at once abandoned the kitchen and started in pursuit with such eagerness, that after a galop of 60 versts he cut off the herd; but he and his three Cossacks were surrounded by the Kirgeze. Fortunately this handful of brave men succeeded in dismounting, and opening fire, held out till succour arrived.

From these examples we may conclude that a successful pursuit depends, above all things, upon the self-dependence, energy and skill of the Cossack officers, and therefore on the habit of distinguishing by the smallest signs, based on a subtle knowledge of Kirgiz usages, the direction taken by the gangs, as well as their strength, the nature of the stolen herd, and other points.

Besides the pursuit of robber gangs, military detachments may be employed under exceptional circumstances in operations against rebel bands in the steppe.

In these cases the best means for the protection of the Kirgeze who remain loyal to us, and for the dispersion of the rebels, is to send out in good time a few mobile detachments to patrol a con-

* In the Damber Kum desert.

siderable portion of the steppe. Lebedef (between 1830-40) acted in this way against Kenisara Kasimof, as did also Major-General Verevkin in repressing the Kirgiz insurrections in the Orenburg steppe in 1869.

The concentration of the troops into one column, from a fear of being beaten in detail, and from an idea that an undivided detachment can act to greater advantage in the steppe than a few small ones, would simply give the Kirgeze the means of eluding our blows. The ill-success which attended Colonel Dunikofsky's detachment in 1845 is explained by these causes.

In regarding this question from a tactical point of view, we find that the Kirgeze, who always attack in superior force, compel our troops to act on the defensive, to form square, and to repulse their attacks with artillery and musketry. Hand-to-hand encounters lead to great losses. Thus, on the 21st April 1870, the commander of the Mangyshlak detachment, returning to Fort Alexander with 57 men of the Dagestan irregular horse, was surrounded when within 12 versts from his destination by a large body of Adaefs, and although the gallant handful of men cut their way through sword in hand, they lost 24 of their number; and at the same time we know many examples where a small body, on being attacked by Kirgeze, has at once opened fire and escaped without suffering any loss.

As an example of one of the most serious attacks made at any time on our detachments, we may cite the case of Baron Stempel, which occurred as follows:—

A detachment under the command of Baron Stempel, consisting of 2 sotnias of Ural Cossacks, a company of the local battalion, and 2 guns, with a large train, marched out on the 6th May 1869 from Iletz Gorodok to Kazbek, where it was intended to erect the Uil Fort.

Up to the 20th May all went well with the detachment, but on this day, as the train was descending from Jida Kul into the valley, a large band of Kirgeze appeared on the neighbouring heights, making straight for the detachment. Five Cossacks, forming a patrol, were killed by their lances. The detachment had hardly halted before the mass of Kirgeze broke in between the train and the rear-guard, and commenced to separate the carts and drive off the oxen. The *mêlée* became general. The Cossacks who were with the rear-guard charged, and, passing through the enemy, joined the infantry. A sharp fire of musketry and artillery drove off the assailants, but 13 carts with oats and biscuit remained in the hands of the robbers.

To march that day to Lake Djaman was impossible. The detachment encamped a few versts distance from the scene of the occurrence, and passed the night without water, the Kirgeze being between them and the lake.

On the following day the troops, descending from the heights on which they had passed the night, fought their way to the water, gave the animals drink, and continued the march along the open steppe in sight of a large band amounting to 10,000 or 15,000 horsemen. In expectation of being attacked, the Cossacks left

their horses with the train and marched on foot with the infantry. In this order the detachment moved gradually forward, and repelling all attacks, at length reached the Djaman, where, having formed a waggon-barricade, they prepared to remain for some days in order to rest the exhausted oxen.

On that same day, about 6 P.M., the Kirgeze again attempted to make a raid, but one well-placed shell, which burst in the midst of the hostile band, forced them to turn tail and disperse.

After their attempts to set fire to the waggon-barricade, which was surrounded with bales of hay, had proved unsuccessful,* the Kirgeze determined to make a fresh attack, which, although a most determined one, was their last. In the evening of the 23rd some large gangs surrounded the detachment, and with piercing cries made a dash at the train. Canister and file-firing were of no avail to stop the attack, and the Kirgeze, galloping up to the train, dismounted and endeavoured to drag asunder the carts with their hands. A hand-to-hand mêlée ensued at some places, and the contest, accompanied by an incessant roar of artillery and musketry, continued until nightfall, when the exhausted Kirgeze at length retired to their camp.

The subsequent operations of the Kirgeze, although limited to mere demonstrations, rendered the situation of the detachment a very difficult one, as it was compelled to remain on the alert for several days and nights;† however, after lingering 2 or 3 days longer round the waggon-barricade, and finding it impossible to destroy the detachment, they gradually dispersed.

From a tactical point of view, some persons consider the operations of Lieut.-Colonel Stempel not sufficiently decisive, as he never attempted to pass to the offensive.

To this it may be replied that had the Kirgeze overpowered the sotnias charging from the waggon-barricade, or still worse, forced them to dismount in front of it, the infantry, deprived of the possibility of firing, would have been compelled to defend the transport with their bayonets alone, and this might not have been altogether convenient.

Still more difficult is it to defend the train when its escort consists of cavalry alone. Thus in March 1869, Lieutenant-Colonel Novokreschenof with 2 Cossack sotnias had to escort a large camel train, which owing to the deep snow had lengthened out to such an extent, that when the Kirgeze attacked the detachment,‡ the advanced guard did not know of it until the Kirgeze were upon the train cutting away the packs and leading off the camels. It is remarkable that in this affair, when all the chances

* When the enemy sets fire to the grass in the neighbourhood of the camp the best way is to cut the grass in rear of the camp and then to transfer the camp into this clear space.

† Although long experience has taught us that the Kirgeze hardly ever make attacks by night, still there have been cases when they have stolen up to the camp, killed the sentries, or, throwing up an entrenchment in the vicinity, have gained cover from fire.

‡ On the 18th March, at Bish Tamak, on the road to the Emban post.

were apparently in favour of the Kirgeze, the Cossacks not only repelled the attack but inflicted considerable loss upon the enemy, and themselves lost only 2 wounded, and some 20 camels carried away by our own drivers.

These unsuccessful operations on the part of the Kirgeze must be ascribed, firstly, to their entire ignorance of the manner of conducting attacks, and secondly, to the character of the operations of our troops, who consider that their strength lies not in offensive but in defensive warfare. On the other hand, if the enemy avoids the encounter with our troops, we must adopt the rapidity and suddenness of attack of the Kirgeze, remembering that Asiatics when caught unawares lose their presence of mind and become panic-stricken, no matter the smallness of the number by which they are attacked. Of course such a mode of operation is only possible with a light and mobile train. In these cases the cavalry as a rule plays the chief rôle; infantry can only take part in these rapid and often prolonged movements provided there are arrangements for mounting the men on horses, camels, or in carts.

As an example of this we may cite an episode of the year 1870.

In early spring a detachment of one company and one sotnia, under the command of Lieutenant-Colonel Saranchof, was despatched to the mouth of the Emba in order to select a site for a fort. The detachment had just entered the steppe when news was received of an insurrection at Mangyshlak among the Adaefs, large bodies of whom had begun to assemble on the lower and middle course of the Emba. The detachment, encumbered with a large train, was exceedingly weak for decisive operations against bands of this tribe elated by their successes against Lieutenant-Colonel Rukin's convoy; nevertheless, to halt the detachment until reinforcements arrived, would have the effect under the present circumstances of giving courage to the rebels. Consequently Lieutenant-Colonel Saranchof, disregarding the news of the formation of the Adaefs into gangs for the purpose of cutting off the detachment from water, and, without awaiting orders, continued his march in readiness at any moment to encounter the enemy. However, this was not required; when the detachment, after an insignificant advanced guard action near Lake Bartyl-dakhta, reached the River Emba, it found, instead of the Adaefs, only the traces of a disorderly and hasty retreat. After completing his reconnaissance, Lieutenant-Colonel Saranchof retired towards Uil fort, and afterwards, on receipt of reinforcements, again marched to the Emba with the object at all hazards of falling upon the enemy's aûls, punishing them for their robberies, and forcing them to submission. As there were no pack camels with the detachment, and in consequence the march beyond the Emba to the Ust Urt could not be undertaken owing to the insufficiency of grass and water, it was only important to reach the Emba before the Adaefs, who were watching every movement of the detachment, could cross it. With this object in view, spies were sent to reconnoitre the roads in other directions. These spies were captured by the enemy who were in this way deceived as to the real direc-

tion the detachment was taking; the last 100 versts were accomplished by a forced march in 24 hours, the heavy baggage being left under escort of part of the detachment, which was ordered to move at the usual pace; the other part, two sotnias, 2 guns and a company of rifles, mounted in carts, marched in light order with three days' provisions. The calculations proved correct; on the 18th June the Adaefts were encountered sooner than they expected and from quite a different quarter, and just as they were preparing to escape over the Emba. Their gangs took to flight, but were pursued for 20 versts, and after a few days appeared with professions of submission and gave up some of the captives in their possession.

But as the conditions of their submission were not ratified by them, Colonel Saranchof, in accordance with his instructions formed a camel train from the herds which he had captured, and in the course of a few days marched beyond the Emba to Uch-Kana in the desert of Djar-Cheke on the sea-shore, where the rebels had collected in large bodies.

In spite of the rapidity with which the detachment marched, the enemy got wind of their approach and took to flight; some to Myn-Su-Almaz, others to the sea-shore, hoping in the event of pursuit to escape to the islands of the Caspian Sea. Under the supposition that Myn-Su-Almaz was occupied by General Bizyanof's detachment, Saranchof took no thought for the former party and moved towards the Caspian, where the ails of the Jemenefs, considered the most warlike and the greatest robbers of all the Adaef tribe, were situated.

The locality over which the detachment had to move presented a completely grassless and almost waterless steppe, covered with bare salt marshes or shifting sands, which only afforded dried up stalks of wormwood or kiyak. In spite of this, Saranchof passed along the western border of the Ak-Kum desert, and on the 7th July made a reconnaissance to Tchuran's tomb.* On reaching this place, which overlooked the Kirgiz camp, Saranchof sent a half sotnia to each flank, and with the remainder marched south-west in the direction of Janibai's tomb.

The road from this place became still more difficult; the pools were so deep and broad that some had to be crossed by swimming against a strong wind, while in others the horses sank to their girths and began to lie down from inability to extricate themselves from the sticky mud. Not wishing, however, to halt before accomplishing his purpose, Saranchof overcame all obstacles and reached the sea shore; but here the detachment drew up before a fearful scene. Many horses and camels with their packs lay in the mud on the shore abandoned by their owners, and further on, at 2 or 3 versts from the coast, crowds of Adaefts up to their waists in water endeavouring to escape to an island; leaving to fate not only their herds but their little children, who were abandoned by their mothers in the scramble. To continue the pursuit would have led

* The detachment consisted of two sotnias of Cossacks, a division of artillery

to the ultimate destruction of many Adaeef families, and therefore, Saranchof, as night was approaching, returned to Janibai, where he was met by the other half sotnias who had pitched the aũls which they found into the sea.

Thus terminated the expedition. On the following day the Adaeefs tendered their submission, binding themselves to pay taxes, to give up the ringleaders and captives, and to return the property plundered by them at Mangyshlak.

Similar rapidity and secrecy characterised Count Borkh's raid, made by order of the military commander of the Turgai district, upon the aũl of the Kirgiz Amantai, Tiuliup-Bergenef, one of the most renowned robber chiefs who nomadised at that time on the Teress-Akkana, a tributary of the Khobda.

When Amantai, in the summer of 1869, was nomadising with his aũl in the Iletz ūyezd with the secret intention of continuing to encourage brigandage, Count Borkh, who was then constructing the Ak Tiube Fort, formed a flying column of 70 Orenburg Cossacks, and accomplishing nearly 200 versts in 2 days by secluded paths and valleys, reached Murtuk. Intelligence was here received that Amantai was nomadising with the aũls of his kinsmen the Chiklins; and as the ties of clanship are held in great esteem among the Kirgeze, the whole success of the detachment depended upon its falling upon the Chiklins unawares.

The object of the detachment was favoured by the inclemency of the night, which was such as is seldom experienced in the steppe. Taking advantage of the darkness, Count Borkh ordered the Cossacks to tie up their sabres, cover their stirrup irons, and put nose bags over their horses' mouths to prevent them from neighing.

In utter darkness and amid the howling of the storm, the Cossacks passed among the sleeping aũls, with the assistance of a trusty guide and the constant flashes of the lightening. At daylight the detachment was far on its road, and perceiving on the banks of a rivulet the traces of an aũl which had just quitted the spot, it trotted forward and soon descried in a large ravine some aũls among which was that of Amantai.

It was necessary to gallop the distance to the aũls as quickly as possible so as not to give the Kirgeze time to recover. Forbidding the Cossacks to fire, Count Borkh dashed at the aũl and demanded from the astonished Kirgeze the surrender of Amantai. The Chiklins at first hesitated, but when Count Borkh proceeded to threats, they not only gave him up, but his brother Nazarbai also, with all their effects.

Apprehending an attack on their return journey, the Cossacks formed a sort of moveable square, and throwing out a chain of skirmishers round the captured herd (about 900 head), prepared in the event of attack to dismount and fire over the saddle. The Kirgeze followed at a respectful distance, but observing our cautious proceedings, commenced gradually to drop off; the detachment reached Ak Tiube in 6 days without *contre-temps*,

after a march both ways of 500 versts and with the loss of only two lame horses.

The rapidity shown in both cases by the cavalry gives proof of the indefatigable powers of our Cossacks; but justice demands an acknowledgment that our steppe infantry does not yield to them in this respect: for instance, the rifles* of Captain Tetgren's detachment, in the autumn of 1870, when hastening to the succour of some Cossacks, ran, not marched, 25 versts in 3 hours. In order, however, to give them this rapidity and mobility in the steppe, without risk to their health, they must be mounted on camels or in carts, or, better still, on horses; in fact, mounted infantry or dragoons. All the trials in this direction have proved successful, and if the infantry are provided with comfortable saddles, and are trained to dismount rapidly, they have not been found to be behind the Cossacks, and have made marches of 80 to 100 or more versts in 24 hours.

XI.

Military Operations in Turkestan.—Sketch of Central Asian Armies (Infantry, Cavalry, Artillery).—Field Engagements and Character of the Operations of the Turkestan Battalions.—*Role* of Riflemen and Artillery in Action.—Mode of Capture of Central Asian Forts.—Defence of our Forts in the Steppe and in Turkestan.

In the preceding lecture we have spoken of military operations in the Kirgiz steppe. Quite different, however, are the conditions under which similar operations are conducted in Central Asia, where there are organized powers, and in consequence towns, fortresses, and standing armies. It is true that centuries of despotism on the part of their rulers, and the prevailing religion, have reduced the strength of the nation to such a low ebb, that these so-called regular armies appear to us like indisciplined mobs, great in point of number, but as ignorant of the military art as they were in the time of Bekovitch Cherkassky. But, although never failing to suffer defeat in the open field, they possessed sufficient firmness behind the ramparts of their fortresses to defend themselves at times with considerable obstinacy.

The armament of the infantry of our neighbouring Central Asian Khanates is rather varied: the Khokandi, for example, are armed in the present day for the most part with matchlocks, while among the Bokhariots we find not only percussion arms and double-barrelled sporting guns, but breech-loading rifles, the front rank being armed with these, while the rear rank have pistols and old fashioned *batiks* and *ai-balta*.

The *arme blanche* of the cavalry is, firstly, the lance, and

* The 1st division of the 1st company of the 18th (now the 4th Turkestan) rifle battalion, under the command of Lieutenant Jivaref.

secondly, a weapon consisting of a cast-iron ball attached to a strap, a battle-axe or a sabre. The cavalry, as an arm, plays usually a most insignificant part, and cannot act at all in winter, as the costly blood argamaks are unable to stand the cold and bad forage. During the Khivan campaign of General Perovsky, a gang of three thousand Khokandi appeared in our Kirgiz steppe, but being overtaken by storms and bad weather, sustained such losses that, according to the reports of the Khivans themselves, scarcely half the men, and those on foot, returned to their native land.

The artillery, judging from the guns which we captured from the Khokandi, may be said to be in a very low scale of development, and reminds us of that of the middle ages. That of Bokhara is better, due to the fact that they have learnt of late from the Afghans. The military qualities of the Bokhariot artillery were displayed in some engagements, as at Irdjar for instance, where their batteries opened fire at distances of 1,800 or 1,900 yards, and of course would have occasioned us much damage, had our rapid advance not forced the Bokhariots to withdraw their guns. At Ura Tiube and Djizak, they likewise fired with great skill, and the little comparative loss which we sustained at the assault of those places may be explained by our batteries not permitting the enemy to place his guns within close range.

It remains to say that, besides the fortress and field artillery, the Bokhariots have a description of mountain gun, carried on pack animals, and wall-pieces, which they use both in the defence of their fortresses and in the open field.

Shahr-i-subz also possesses certain qualities; the inhabitants of that country are excellent shots, while in energy and bravery they are far superior to the Bokhariots and the inhabitants of the Zerafshan valley.

With regard to our most easterly neighbours, the Kashgarees, their infantry, according to eye-witnesses, is much better organized than the other Central Asian powers, and has been drilled to a certain extent by immigrants from East India. The Kashgar artillery is more numerous and of better quality than that of Bokhara or Khokand. The cavalry, besides the sabre and lance use arrows, and are trained to carry a foot soldier on the croup of their horses. Of the moral force of these troops we will say nothing, as some estimate it rather higher, others lower than that of the Bokhariots.

After reviewing our scanty information of the character and military organization of our Central Asian antagonists, it is not difficult to come to the conclusion that in military operations in Turkestan it is impossible to do without some moveable columns, as had been done in the Kirgiz steppe. Such an arrangement was only possible there as long as the military operations on our side were limited to a passive defence, or, at the most, to raids. But as the experience of late years has demonstrated that in consequence of the special peculiarities of the neighbouring races, and the extent of the frontier line, a successful defence of Turkestan is only possible by opposing to an attack active energetic measures, and

thus our detachments required such an effective as to enable them to furnish sufficient garrisons for the occupation at any rate of the most important strategical points, without weakening the field force to too great an extent.

From the very nature of warfare in Turkestan, troops may have to take part both in operations in the field and in sieges and assaults of fortresses, in the defence of forts, and lastly in raids and enterprises against robber gangs. As the latter operations—the raids—come under the general conditions of operations in the steppe, of which we have already spoken, we will endeavour to lay down simple rules for the guidance of our men in actions with the enemy.

The development of the offensive element in troops is the first condition of success in Asiatic warfare. In point of fact, no matter how many Asiatics there may be, they will evade the attack of the smallest column if it only acts with boldness; the sight of “charge bayonets,” and cries of hurrah! produce a strong impression upon the enemy, and force him, as a rule, to seek safety in flight.

But the proneness of the Turkestan battalions to move straight from the position with the bayonet, despising the co-operation of skirmishers and artillery, has sometimes cost them dearly, and may endanger the success of the enterprise. In the engagement at Zerabulak on the 2nd June 1868, one of our battalions, dashing forward impetuously with the bayonet, was surrounded and so hidden by the dense crowds of the enemy, that the division of artillery in rear, being unable to distinguish it, dared not fire canister at these masses; but luckily the gallant companies made a fresh charge with the bayonet and opened a road for themselves, defeating the enemy with a loss of 17 men.

Of course the defeat of such a foe as the Bokhariots is not difficult; but it is necessary to remember that these light victories give, as a rule, insignificant results, and while dispersed in one place, these gangs easily and quickly unite at another, often in larger numbers than before.

In order to secure a decisive victory, it is by no means sufficient to put the enemy to flight; it is necessary to inflict such loss upon him, that he cannot quickly recover from it; and this is possible only by a heavy fire. Hence the reason that the most convenient order for our infantry is an extended front, even without a chain of skirmishers, as this formation gives a greater extent of fire, and at the same time, owing to the little steadiness of the enemy, is quite close enough for a good bayonet charge.

Generally speaking, in consequence of the small size of our detachments, the character of the enemy and of the ground, which both in the Caucasus and in Turkestan often prevent our artillery from taking part in the attack, at the same time with the infantry, we ought not to commence the attack from a long distance, and by a premature bayonet charge deprive ourselves of the advantages of our fire, and thereby risk an incomplete and indecisive victory.

In proof of this we will mention some characteristic instances.

During the attack of the Samarcand heights (1st May 1865) the infantry, moving to the attack, went forward at once with the bayonet, masking their own artillery; and although the enemy fled in panic fear, his losses were too slight to make him sensible of his defeat. The same thing was partly repeated at Zerabulak, where the small number of dead Bokhariots on the left flank served as the best proof that here also we had not turned to account the superiority of our arms as we might have done, and had not allowed time for shattering the enemy's masses. At the same time we must not let the troops run into the opposite extreme of firing away their cartridges. The Bokhariots sometimes open fire at a very great range, and our soldiers, not to be backward, uselessly expend much powder, and at the same time nothing raises the spirits of the enemy so much as an unsuccessful fire at long ranges. Although field engagements, carried out with greater or less success, are capable to a certain extent of subduing and shaking the power of a Central Asian sovereignty, yet great results in war are only to be attained by the occupation of a town or fortress, as to the fall of such a point there is attached a sense of territorial loss. From this it is plain that the siege of a fort is the chief and, it may be said, the only operation open to us for the attainment of a decisive success in Turkestan.

Nearly all the important towns of Central Asia are surrounded with high mud walls, which are flanked in many places by towers of two and even four stories; the ditches surrounding the walls are in rows, and are filled with water, attaining in some places a depth of 28 feet or more. On the top of the walls, on the outer side, run crenelated galleries 6 feet high, which are loopholed; the wooden gates are plated with iron, and are protected on the outside by traverses, while on the inside are corridors running in a serpentine direction.

It might appear that the capture of such towns, in the event of an obstinate and careful defence, would be an impossibility for a weak antagonist; but it is necessary to bear in mind that the garrisons of the towns, from the extent of the line to be defended, are scattered over a large space, and it therefore appears feasible to capture the works before the enemy has time to concentrate against the attacked point, and also that the artillery, however numerous, is dispersed over a line of several versts in length, and cannot act in concert at a given moment. Besides having no idea of turning the locality to account, Asiatics, even in fortresses, defend themselves only behind their ramparts, disregarding such objects for instance as gardens and suburbs, which, from their being mud structures, are not easily fired, while their crooked intersected streets could impede the assailant at every forward step.

Between 1840-50 our troops had frequently to besiege and capture towns in Central Asia; but at the beginning, having no idea of the means of defence of these fortresses, we acted with great circumspection; for instance, trenches were opened, approaches made, and by this both time and men were uselessly lost. Afterwards we changed our tactics and, as a rule,

abandoned the regular siege and had recourse to open escalade. The difference was immense. For instance, in order to capture Ak-Mechet, defended by 300 Khokandi, our detachment of 2,000 men required three weeks, but the conquest of Djizak, one of the strongest fortresses in Bokhara, was commenced and finished in a week in spite of its being defended by a garrison of 10,000 men.

We will say a few words as to the essence of such an operation as the siege of a Central Asian fortress.

In undertaking the siege of a town it is necessary first of all to surround it on every side in order that the garrison may not only not receive reinforcements but may have no communication with the exterior. In some cases this may be attained by a careful selection of points to be occupied by detachments, which although small should be strong enough to repel any sorties. Then turning to account the carelessness of Asiatics and their want of knowledge of the importance of sentry duties, breaching batteries should be formed at night as near as possible to the walls, a breach effected and the assault made. As a rule it is sufficient to show a handful of volunteers on the wall of the strongest fortress to ensure its fall.

The principal rôle in the assault falls to the infantry, the cavalry only takes part when the enemy is leaving the fortress, although there have been cases when, from the local circumstances, they have had to share in the assault, vying with the infantry. Thus a mounted sotnia of Urals, during the assault of Ura-Tiube, after forcing their way through the gates of the fortress, killed the gunners on the barbettes and, after dismantling the guns, arrived opportunely to the aid of the troops attacking the north bastions.

In the storming of Djizak, the Cossacks sent with Colonel Pistolkors to make a demonstration against the north-west angle of the fortress, dismounted, and with the two guns which they brought with them approached so close to the walls that the Bokhariots made a sortie. They were met, however, by the Cossacks with such a fire of grape that they took to flight.

Opinions vary considerably as to the importance of artillery in the attack of Asiatic fortresses. According to the opinion of some it is of little relative value because the mud walls of Central Asian defences do not yield readily to our shells, while the irregular form of the works seldom permits the guns to deliver a direct fire; others say, on the contrary, that artillery can play an important part. In fact, not very long ago, artillery was limited to mere bombardments and demonstrations, but now it is used for breaching. It is true that many still continue to deny the advantage of breaching batteries, believing that the formation of a breach is only suited for European warfare and is entirely superfluous against Asiatics, as it prolongs the duration of the siege and leads to a useless waste of life; but this assertion is opposed to facts. Breaching batteries were tried first at the siege of Ura-Tiube in 1866, and the result was that the column

penetrating through the breach lost 5 men whilst the other which stormed the walls with ladders lost 150 men.

From this it may be concluded that under certain conditions all the rules of the art of siege warfare are applicable in Central Asia, and that the formation of a breach is as a rule necessary. Moreover, owing to the height of the walls, ladders are often found too short, besides that escalade is at all times a dangerous operation. For instance, in 1852, our men were beaten off from Ak-Mechet before they had captured the outer rampart, and, for the same cause, one of the columns at the storming of Khodjent was repulsed with a loss of 80 men.

The best time for the assault, if we take into consideration the carelessness of Asiatics, is daylight. But there are exceptions. In the capture of Djizak our troops had to assault at noon, as the Bokhariots, taught by experience at Ura-Tiube, which was assaulted at dawn a few days before, kept awake until daylight so as not to be taken unawares. At noon no one expected the assault and thus the strongest fortress fell after half an hour's resistance.*

Although the erection of breaching batteries and the formation of a breach is the best and surest means for capturing a fortress, it cannot for all this be recommended as superior to everything else. If the fortress is small, for instance, and has a strong profile to the walls, a bombardment may be had recourse to, as was done in 1869 at Yani Kurgan, which fell in 23 hours, almost without loss.

We will now pass to the defence of our own forts in the Kirgiz Steppe and in Turkestan.

Properly armed and provided with the necessary warlike stores our steppe forts form very secure defensive points, particularly against such antagonists as the Kirgeze.

Although the distance between our forts is for the most part very considerable, this is no disadvantage, as the security of the Kirgiz steppes does not lie in defensive, but in offensive operations; the forts serving only as points of support for the active enterprises of the garrison quartered in them. The more mobile the detachment the more ensured is the defence of the district.

None of our forts, with the exception of Fort Alexander, have been attacked by Kirgeze. This exception we will note:—

Soon after the defeat of Rukin's detachment at Mangyshlak, the commandant of Fort Alexander received intelligence that the Adaefts were collecting in large numbers in order to capture the fort before reinforcements could be brought by steamer from the Caucasus.

At the end of March large gangs of Adaefts collected about 6 versts from the fort in the hilly and intersected country, and on the 3rd April commenced to approach its eastern defences. At

* At the siege of Djizak the Bek in command, wishing to prevent all egress from the fortress, ordered the gates to be closed, leaving narrow wickets in some of them. When our troops forced their way in the Bokhariots found their line of retreat closed, and surrendered in masses. Some fanatics, however, took refuge in a powder magazine, and blew themselves up.

the first rounds from the garrison the whole band halted, and, turning to the right, moved in the direction of the Cossack village of Nikolaef. The unarmed village was of course unable to offer any resistance, and, therefore, all the inhabitants who could not take refuge in time in Fort Alexander, or escape by boats to the open sea, were killed in a most inhuman and barbarous manner. The Kirgeze afterwards burnt the village and plundered the Armenian shops.

After a day or two the Adaefts again approached the fort, and this time tried to gain possession of Flagstaff Hill, from which they could see all that was going on in the fort; but they were foiled in this attempt by the Cossacks. A fire was kept up from the fort until sunset, and the garrison remained all night under arms awaiting the attack.

On the 7th of the month the day passed quietly; but the spies who came to the fort brought word that an attack would be made that night on the Armenian shops in the lower fort, from which all the troops had been removed since the commencement of the siege.

The night was dark, preventing the enemy's approach from being observed, and the garrison could not attempt a sortie as there were but 150 men in all, including labourers, hospital attendants, clerks, meteorologists, &c., who could hold a gun.

At 10 p.m. the fusillade from the outpost picquet betokened the approach of the enemy. In spite of the heavy fire of grape and small arms directed upon the streets of the Armenian bazaar, the Kirgeze, who had forced their way into the lower fort, plundered it until morning. It was impossible to save the bazaar, and therefore firing was suspended, especially as we began to run short of ammunition.

On the 8th the Kirgeze occupied the gardens adjacent to the fort, burnt the bazaar, and appointed the 10th for the final assault. This, however, did not take place, as on the 9th a steamer arrived with 2 Caucasian companies, and the Kirgeze, giving up all idea of attacking the fort, fled to the mountains.

In Turkestan the enemy has also more than once attempted to seize our forts. For instance, the affairs at Fort Perovsky, Yani Kurgan, and Samarkand, the siege of which by the enemy lasted 7 days and caused us considerable loss. Formerly, judging from previous instances, an active defence was considered the best means for defending any point in our occupation, and therefore the troops made a sortie from the fortress and endeavoured to attack the besieging force in the open field; but as it was impossible to do this in the case of Samarkand, this siege afforded us some instructive examples, which must be taken into consideration in future operations in Central Asia:—

(1.) Excessive confidence in the inhabitants was the cause of the commandant of Samarkand abstaining from the destruction of the houses which adjoined the walls of the citadel; and by thus depriving the garrison of the possibility of cannonading the enemy, the attacks became long and obstinate. (2.) The immense extent

of the walls both of Samarkand and other fortresses, by giving the adversary the choice of many points for his attack, demands on our side an efficient reserve for opportune employment wherever reinforcement is required. To the excellent arrangements of its reserve the citadel of Samarkand owed its safety. (3.) Artillery fire as the chief means of defence of the garrison must be directed with great skill, or the enemy by taking advantage of the cover afforded by the town buildings will hardly suffer any damage; and (4.) the commanders must be ready with expedients for repairing breaches, making barricades, and other means of meeting assaults.

In conclusion, we must repeat that in spite of the gallantry of the troops, contempt for the enemy, no matter who he may be, and inattention to the teachings of military science and experience, are paid for in useless and irreparable losses, whereas the preservation of the men, owing to the difficulty alone of replacing casualties in such remote regions, should always be the first consideration in all military operations in Asia.

APPENDIX.

NOTES ON THE KHIVAN EXPEDITION, 1873.

Turkestan
column.

The forces placed at the disposal of General von Kaufmann for the Expedition to Khiva started from three different bases of operation: (1) from the Turkestan District; (2) from the Orenburg District; and (3) from the Caucasus District.

The column from Turkestan was formed into two minor columns, the one starting from Djizakh, the other from Kasalinsk; these two detachments were to unite at the Bakan Mountains, and thence move together upon Khiva.

The combined column consisted of:—

21 companies* of Infantry.

1 company of Sappers (250 men).

7 sotnias† of Cossacks.

28 field guns (including 2 mitrailleuses of Noble's construction).

8 rocket stands.

Total, 5,247 men, and 1,654 horses.

Fortified posts were established at Irkibai, Tamdy and Khal Ata, in which places garrisons were left, and reserve supplies of food, ammunition, and other stores accumulated.

Orenburg
column.

The Orenburg column consisted of:—

9 companies of Infantry.

1 Sapper detachment.

9 sotnias of Cossacks.

12 field guns. (Besides these, 2 rifled muzzle-loading 4-prs. were carried with the train for the armament of the fortified post at Urgu, and 4 small mortars for possible use against Khiva).

6 rocket stands.

Total, 3,461 men, and 1,797 horses.

Fortified posts were formed at Djana Kal and Urgu-Murun, a promontory near Lake Aibugir, where garrisons were left and reserve stores concentrated. Large stores were also collected at the Emban Post, the last fortified point on Russian territory.

Caucasus
column.

The Caucasus column was split into two main detachments, moving respectively from Krasnovodsk and Mangyshlak.

The constitution of the Krasnovodsk detachment is omitted, as it will be remembered that this was the column—the only one—which failed in reaching Khiva. It started on its march from the eastern shores of the Caspian, but after persevering in its struggle for some weeks against the most formidable difficulties which nature could oppose to it, was at length compelled to return. No blame for this failure can be attached to the commander of the column, Colonel Markossoff, an officer of consider-

* Normal strength of a company, about 200 men.

† Normal strength of sotnia, 150 men.

able experience in the steppe ; on the contrary, but for his resolution to return, the whole of the detachment might have perished. The heat was so intense that the thermometers burst at 55° R. (157° F.), that being the maximum graduation on the stem, and even the Cossacks were dying from sunstroke and want of water.

The moral force exercised by the presence of this column on its return was, however, of use in overawing the Tekke Turkmen who inhabit the country to the north of the Persian frontier, so that, although it was debarred from participating in the triumphal entry into Khiva, it still contributed a share to the general success of the campaign.

The Mangyshlak column, originally intended to be a much larger force, had, owing to the difficulties of obtaining transport, to be reduced in strength, which was ultimately as follows :—

- 12 companies of Infantry.
- 1 Sapper detachment.
- 6 sotnias of Cossacks.
- 6 guns (4 field, 2 mountain).
- 3 rocket stands, and some mounted natives.*

Total about 2,000 men. There were a few horses, probably under 1,000.

Fortified posts were established at Bish Akhty and Iltedge in connection with the base of this detachment on the shores of the Caspian. The operation of landing the stores at Tchikishliar, no easy one, is described in one of the Russian military journals ; the men had to carry the stores for about half a mile in order to land them in consequence of the shallowness of the sea in places. The exposure of the men, breast high in the water, to the scorching rays of the sun must have laid the foundation of much sickness.

The total force of combatants forming the expedition, therefore, numbered nearly 11,000 men, in which are not included the numerous non-combatants, such as train drivers, native camel attendants,† hospital attendants, guides, suttlers, &c. When it is remembered that this large force had to traverse the vast expanse of sandy steppe which separates the Russian frontiers from the Khivan oasis—deserts which are absolutely barren, and can afford no supplies whatever, not even water in many cases—some idea may be gained of the amount of transport required.

Transport
arrangements.

The requisite transport could not be obtained, even with all the resources of Russia. Camels were indispensable, as there are often marches of three days' length where no water is to be had, and these are the only animals which can exist without water for any time. The campaign hinged entirely on the transport, and how nearly it broke down from its insufficiency is evident to any one who has read the unpretending journals of Colonel Kolokoltsoff.

It is difficult to find out the exact number of camels actually obtained for the use of the troops. Lieutenant Stimm, the Prussian attaché with the Russian forces, mentions 19,200 camels as the total number required, but this appears to be under the mark according to the Russian accounts, which assign 8,800 and 10,320 to the Turkestan and Orenburg columns respectively, and therefore exclusive of the requirements of the Caucasus column.

Some idea of the quantity of stores required for the use of the troops

* These men acted as guides and reconnoiters. They also formed guards, for patrolling the line of communications.

† There was a native driver to every 5 or 7 camels.

may be gathered from the fact that 2,700 tons of stores of different kinds were sent to the Emban post for the use of the Orenburg column alone, and for the transport of this amount upwards of 10,000 camels were stated to be necessary.

Supplies.

The troops carried on an average two-and-a-half months' supply in their commissariat train, another month's supply was accumulated at the fortified posts, and four months' supply in addition for the garrisons of those posts.

Ration of soldier.

The ration appointed for the Russian soldier per diem, as given in Lieutenant Stümm's account, is as follows :—

2 lb. bread (hard black biscuit).
 $\frac{1}{2}$ lb. groats.
 2 oz. salt.
 $\frac{1}{2}$ oz. meal.
 $\frac{5}{8}$ oz. dripping.
 5 oz. pease.
 5 drams of vinegar.
 $14\frac{1}{2}$ drams of spirit.
 2 lb. mutton.

Lieutenant Stümm remarks that this was the ration laid down in the regulations, but he expresses a doubt whether a regular supply of these quantities could be sustained in the desert. From the Russian accounts it seems tolerably certain that the men did not get this ration. Colonel Kolokoltsoff, in his diary, mentions that the men's appetites failed in the intensely suffocating heat. They only seemed to mumble their biscuit, and the latter does not appear to have been very palatable. We are told that native chupatties (unleavened cakes of flour and fat) were obtainable from the suttlers, but that few could touch them. Sheep were taken with the detachments, and others were purchased from friendly Kirgeze. Salt meat was also carried. The Orenburg detachment brought a small supply of salt meat with it, besides 15,300 rations (their force was nearly 3,500 men) of preserved meat. Supplies of rice were also obtained on the road (by the Turkestan detachment) from the Emir of Bokhara.

Directly Khivan territory was reached, markets were established and supplies of fresh meat, vegetables, fruits, and other articles, were brought in for sale.

No Russian can get on without his tea, which is drunk very weak, with acid in it in lieu of milk. Cold tea was found to be the most grateful beverage for allaying the parching thirst, from which the men suffered severely in their march through the desert. The proportion of tea and sugar issued to the troops was 1 lb. tea and 3 lb. sugar to every 100 men per diem.

Transport animals.

The animals employed for transport purposes were camels and horses; chiefly the former. The field artillery was sometimes drawn by horses and sometimes by two camels harnessed tandem fashion. The mitrailleuses had one camel each for their draught.

Camels formed the staple transport. Many were hired from friendly Kirgeze, some were sent by the Emir of Bokhara, and when the natives were unwilling to lend them, they were taken by force. A few were captured from the Turkmen on the road during the skirmishes. The camels procured were as a general rule in bad condition, owing to the scarcity of grain and grass during the preceding winter and early spring. Instead of being able to carry the ordinary load of a good

camel, namely, 600 or 700 lb., they could not be loaded with more than 480 lb. under the best conditions, and with only 200 lb. in some cases. Immense numbers of camels and horses died from exhaustion and privations, chiefly the want of sufficient water, and the columns were reduced to great straits in consequence. Many officers' horses and artillery horses died on the road.

The horses were fed on barley or oats, and hay.* The ration of corn was 10 lbs. The camels were fed on straw, the refuse of sesame and hay. The Emir of Bokhara sent presents of forage, and other friendly natives brought it in for sale. The main supply, however, had to be carried with the columns. Ration of horses, &c.

The only fodder in the steppe is a coarse prickly grass, which camels will eat, but horses will not touch it. Underfoot grass was met with on the banks of the Oxus and in the Khivan oasis generally.

Water, except in the waterless parts of the desert, was obtained on the road, either from wells or springs. These wells had been in some places filled in by the enemy, but were cleared out by the sappers. The water they contained was, in places, barely drinkable; tea made with it, Colonel Kolokoltsoff tells us, "was bitter to the taste, and had the appearance of coffee." His story of the campaign is full of harrowing details, for instance, we find a father suffering the most dreadful tortures rather than beg a mouthful from his son's water-bottle. Vambery's accounts of the miseries undergone in the steppe, which, before the campaign, were believed to have been highly coloured, now proved to be only too true.

During the waterless marches in the desert, water was carried by the train in skins, barrels, and other wooden utensils, and by the men in bidons and bottles.

In the case of the Krasnovodsk detachment (the one which failed) we are told that the water was carried in skins and in 5-vedro (13½ gallons) casks, 40 of which casks were assigned to each company. This column carried with it 4,000 vedros, or 10,800 gallons, which was calculated to be sufficient for 6 marches, allowing each man 4 bottles of water in the 24 hours. The allowance for a horse was a vedro (10·8 quarts) per diem.

Water was found to evaporate very fast from the casks and other utensils with the thermometer standing at 150° F.

The scarcity of water was so great that Colonel Kolokoltsoff tells us that he dare not wash the dust out of his eyes, all he could afford to do was to wipe them with a damp towel.

Vapour baths on the Russian principle seem to have been established at some of the permanent halting places.

The "Norton tube wells," carried by some of the columns, seem to have turned out a failure. The Turkestan troops considered them useless lumber, and abandoned them on the road. The valves appear to have got out of order.

The medical department of the Turkestan column was organized as follows:— Medical arrangements.

With the field detachments there was a field-hospital with 270 beds, and at the forts of Irkibai and Tamdy, temporary hospitals with 15

* The Cossack horses had often to carry 9 days' forage with them (140 lb.) the Cossacks leading them in this case (Krasnovodsk detachment).

beds each. All these hospitals were supplied with a sufficient quantity of the necessary stores, medicines and surgical instruments.

Besides these, the "Society for the Relief of the Sick and Wounded, under the patronage of the Empress, sent upwards of 5 tons of medical and hygienic stores, accompanied by 2 surgeons and 4 assistants. The Turkestan branch of the society also granted 220% for the provision of a field ambulance for 20 men.

In the Orenburg column, besides similar hospital arrangements, the Orenburg branch of the "Society for the Relief of the Sick and Wounded" supplied a quantity of hospital requisites; including three ambulance carriages and 50 portable litters, stores of hospital linen, wine, tobacco, anti-scorbutic remedies, extra rations of tea, sugar, some books, journals, writing implements, &c. It also gave 450% in money.

The health of the troops seems to have been good on the whole. Some cases of frost-bite occurred at the commencement of the expedition among the Turkestan detachment. There were several cases of sun-stroke, dysentery, and diseases of the eye, produced by the glare of the sun on the snow and, later on, by the reflection of its rays from the sand in the desert. Inflammation of the eyes from the light friable lime dust was of common occurrence in the Krasnovodsk column. Catarrhs were the most frequent ailment, due to the great alternations of temperature.

Ammunition,
stores, &c.

The ordnance carried by the force was of the lightest description. It was partly of modern and partly of old construction, viz. :—

- 3-pr. mountain guns, rifled, breech-loading.
- 3-pr. mountain guns, muzzle-loading.
- 10-pr. howitzers for armament of forts.
- 4-pr. field guns, muzzle and breech-loading, rifled.
- 10-pr. mortars.
- Rockets.
- Mitrailleuses.

The guns were supplied with a triple complement of service cartridges and projectiles, except for the guns intended for the armament of forts, which received less. In the case of the forts at Irkibai and Tamdy they were provided with 130 rounds for each 10-pr. howitzer and 200 rounds for each light gun. Loose powder, powder-hose, and other stores were also carried.

The troops were provided with a triple complement of ball cartridge. Of these the troops carried one complement (60 rounds) in their pouches, the other two being carried on pack animals with the artillery park.

In the engineer park of the Turkestan column, besides the ordinary stores, were carried 4 iron ferry boats, each consisting of two boats joined together, and a spare boat.

The Orenburg detachment had two portable bridges, one on trestles, the other partly of pontoons, partly of skins.

Clothing.

Owing to the great alternations of temperature, the clothing of the men comprised a large variety of articles, which added considerably to the transport.

The troops belonging to the Turkestan detachment received a sheepskin jacket, fur collars covering the neck and ears, felt boots goloched with leather, woollen foot-bandages,* and ground blankets to lie upon.

* The Russian soldier, like the Prussian, wears no socks in a campaign, but bandages his feet with linen in the summer, and with flannel in the winter.

On the night (13-14th March) that the Djizakh column crossed the river Kli, 4 inches of snow fell and the thermometer stood at 12° F., and was even lower than this during the next few days. The men were not allowed to go to sleep at night for fear of being frozen to death. Several cases of frost-bite occurred, but only one native camel driver was frozen to death. When the same column reached the desert in April the thermometer registered 132° F., with a suffocating atmosphere. The changes of the night and day temperature were very trying. In the day the men marched in their gymnasium blouses. The early mornings, however, were often so cold that the mounted men and staff wore their cloaks.

The Turkestan detachment, which was the most exposed to climatic changes, was provided with kikitkas (nomad tents) and tentes d'abri. Many tents and a great deal of the officers' and men's personal baggage had to be buried or burnt on the march owing to the dearth of transport.

F. C. H. C.

Horse Guards, War Office.
28th February 1874.

NOTES ON THE TURKMEN RACE.

(From Ibrahimof's Journals.)

The Turkmen,* a Mahomedan race of the Sunnite sect; their language a mixture of Turkish and Uzbek, with many Tatar words, which are not used either by the Sarts or Kirgeze of Central Asia. The type, Central Mongol, like the Kara Kirgese, of high stature, brave, warlike, and strongly addicted to plunder and pillage.

They have a saying—

"Tuyalik yerda tut bulmas
Trukmyanlik yerda yurt bulmas."

(No tree grows where camels browse; no peace where there are Turkmen.)

Like the Kirgeze they live in felt kibitkas, but the latter are more lofty and of better quality. In winter they live like the Uzbeks in mud huts. They employ themselves in agricultural pursuits and in cattle breeding.

The following is a list of the tribes and subdivisions of the Turkmen which nomadise in the Khivan Khanate.

- (1.) *Yomuds*, divided into five divisions: (a) *Ukuz*, 5,000 kibitkas; (b) *Salak*, 20,000 kibitkas; (c) *Urchukchi*; (d) *Ushak*; (e) *Kujuk*.
- (2.) *Emral*, 10,000 kibitkas in all,—divided into (a) *Garadashli*; (b) *Karakum*; (c) *Berdi Khoja*; (d) *Karatail*.
- (3.) *Chaudir* 17,000 kibitkas.
- (4.) *Garadashli* 5,000 "
- (5.) *Guklen* 300 "
- (6.) *Ala-ili* 1,000 "
- (7.) *Arbach* 200 "
- (8.) *Ata* 9,000 "
- (9.) *Mekheli* 300 "
- (10.) *Duyachi*, and } 300 "
- (11.) *Igdir* }
- (12.) *Chandir* 400 "

All these tribes nomadise in different parts of the Khanate. Thus, the Yomud on the Kasavat and Kyzyl takir. At the latter place the Guklen and the Ala-ili tribes. The Emral, Garadashli, Duyachi, Igdir, Chandir and Mekheli near Elagla (Ilyala); the Chaudir on the Arna and Porsu; the Ata on the right bank of the Amu Darya, near Shurakhan; the Arbach on the Shabbaz-vali.

We next come to the Turkmen who nomadise in the southern part of the steppe, in the direction of the Afghan and Persian frontiers.

These latter Turkmen are divided into two great tribes, *Sarik* (foreign sheep), and *Teke* (mountain sheep).

* Vambery says the word is compounded of *Turk*,—Turk, and *men* a suffix; others state that the *men* is the personal pronoun I.—Translator.

The *Sarik* live between Panda and Yulutak, and consider themselves subjects of the Khan of Khiva, although they pay no taxes to him. Their chief is Karimberdy-Mahsum, son of Ishan-Caliph.

The *Sarik* tribe is divided into five great divisions, and each of these again into subdivisions.

- (1.) *Sukshi*, 6,000 kib. Chief, Karimberdy-Mahsum, who is chief also of all the five divisions.
- (2.) *Khurasanli*, 4,000 kib. Chief, Khalnazar Beg.
- (3.) *Bairaj*, 4,000 kib. Chief, Khan Beg.
- (4.) *Erzeke*, 10,000 kib. Chief, Yagmir Beg.
- (5.) *Alacha*, 6,000 kib. Chief, Suin Khan.

The division *Sukshi* is divided into three subdivisions, Irdena, Dadiguli, and Chemsha.

The division *Khurasanli* into four: Mamatai, Kuenji, Kadir, and Kurd.

The division *Bairaj* into four: Janybeg, Irki, Siddik, and Murtaza.

The division *Erzeke* into six: Kujali, Kyzyl, Beden, Kanglibash, Kuldja, and Suinali.

The division *Alacha* into six: Khoja Nazar, Beshedmess, Auch, Chalbazan, Almysh, and Apagi.

The Teke tribe is divided into two great divisions: *Toktamys* and *Otamys*. The former has six subdivisions.—

- (1.) *Amacha*, 3,000 kib. Chief, Shekhli Sardar.
- (2.) *Kukchi*, 4,000 kib. Chief, Kanshut Khan, who is chief as well of the whole Teke tribe.
- (3.) *Kungir*, 2,000 kib. Chief, Kaib Khan.
- (4.) *Khar*, 1,000 kib. Chief, Kazgy Khan.
- (5.) *Kara*, 2,000 kib. Chief, Karabai.
- (6.) *Karacha*, 1,000 kib. Chief, Uraz Murad Khan.

All these subdivisions nomadise on the east side of the river Murgab.

Otamys has seven subdivisions:—

- (1.) *Bakshi*, 5,000 kib. Chief, Ana Yar Khan.
- (2.) *Sultan Aziz*, 2,000 kib. Chief, Ashur Sardar.
- (3.) *Burkas*, 3,000 kib. Chief, Khodja-Nafas-Aksakal.
- (4.) *Shitchmas*, 6,000 kib. Chief, Batyr Khan.
- (5.) *Karakhmat*, 5,000 kib. Chief, Berdy Niyaz.
- (6.) *Parryang*, 2,000 kib. Chief, Tuchidshi Sardar.
- (7.) *Tubaz*, 500 kib. Chief, Hakim Khan.

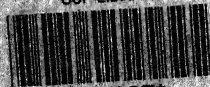
These subdivisions extend their nomadisings to the west of the river Murgab.

Besides the Sariks and the Tekes, there are other Turkmen—*Yer Sari* (*i. e.*, brave blondes), who nomadise between Chardjui and Klyp (Balkh), an agricultural people; part of this tribe owns subjection to Bokhara and part to Kabal. The total number of the *Yer Sari* exceeds 60,000 kibitkas. The tribe has two divisions, *Kara* and *Bakaul*; the chief of the former is Sultan Murad Beg, and of the latter Mad-Turdy-Ishan.

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